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**THE
MEDICO-CHIRURGICAL
REVIEW.**

NEW SERIES.

VOLUME FIVE.

[BEING VOL. IX. OF ANALYTICAL SERIES.]

**CONDUCTED BY
ASSOCIATED PHYSICIANS AND SURGEONS;**

**AND SUPERINTENDED BY
JAMES JOHNSON, M.D.**

**MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON,
AND PHYSICIAN EXTRAORDINARY TO HIS ROYAL HIGHNESS THE DUKE
OF CLARENCE.**

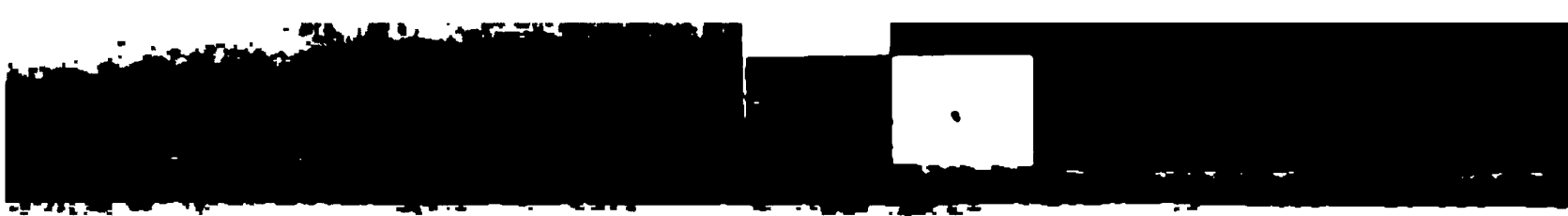
**Nec tibi quid liceat sed quid fecisse decebit
Occurrat mentemque domat respectus honesti.—CLAUD.**

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1826.



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THE
MEDICO-CHIRURGICAL
REVIEW.

VOL. IX.]

Analytical Series.

[No. 25.]



“ Nec tibi quid liceat sed quid fecisse decebit
“ Occurrat, mentemque domat respectus honesti.”

VOL. V.]

JULY 1, 1826.

[No. 9.]

[NEW SERIES.]



I.

1. *Conversations on the Theory and Practice of Physiological Medicine ; or, Dialogues between a Savant and a young Physician, a Disciple of Professor Broussais ; containing a Concise Exposition of the New Medical Doctrine, &c. &c.* Translated from the French. 8vo. pp. 326. December, 1825.
2. *An Inquiry into the Seat and Nature of Fever ; as deducible from the Phenomena, Causes, and Consequences of the Disease, the Effects of Remedies, and the Appearances on Dissection.* By HENRY CLUTTERBUCK, M.D. &c. &c. *Second Edition.* 8vo. pp. 494. 1825.
3. *Examen des Doctrines Médicales, et des Systèmes de Nosologie.* Par F. S. V. BROUSSAIS, M.D. &c. &c. Two volumes, 8vo. Paris, 1821.

IT is now some 20 years since, on the demise of honest Brown and his doctrines, it was universally acknowledged that there was a vacancy for a new theory of fever. On this occasion two candidates came forward—Dr. Clutterbuck in this country—and Dr. Broussais in France. Our fellow citizen had the start, and the *brain* being, as he thought, unoccupied, he placed the seat of fever there at once. Broussais was obliged to take up an humbler station—and he pitched upon the stomach and bowels, as the theatre for his future operations and speculations. Other candidates, but, *minoris notæ*, have since endeavoured to establish the nature and fix the seat of fever, with indifferent

success. Some have selected one organ, and others another, for the throne of this mysterious disease—and some (as Marcus and Mills) have given fever a kind of roving commission, or *passe partout*, to establish its head-quarters wherever it may find the friendliest reception among the viscera of the body.—The two great leaders at the head of our list, have each a considerable number of disciples and proselytes—but those of Broussais are infinitely more numerous, noisy, and intolerant than the followers of Clutterbuck in this country. They are as tenacious and blood-thirsty as the swarms of leeches which they employ—and woe to the unfortunate *entologist* who ventures to dispute the omniscience of their oracle! But both parties are intolerant—and strange to say, they are more inveterate against the *eclectics*, or those who endeavour to select the truth from among the errors of the adverse systems, than they are against their direct opponents. Broussais anathematizes the *eclectic* system as “the anarchy of science”—“because it furnishes a complete proof of the imperfection of medical doctrines;”—while our worthy countryman attributes the vague and vacillating treatment of fever to the non-adoption of the fixed principle laid down by him in his theory of the disease. Now, this is very hard upon the *eclectics*; for it must be admitted, even by the rival candidates for supremacy themselves, that both systems cannot be right—and, therefore, the probability is, that truth lies between—and that perfection is the lot of neither. The seat of fever, in fine, is like the rainbow—or the horizon, which

“Allures from far, but as we follow flies.”

We are ready to grant, however, that the writings and investigations of Dr. Clutterbuck, Dr. Broussais, and all those who have endeavoured to deprive fever of its *idiopathic* title, and reduce it to the character of a symptomatic affection, have done a vast deal of good, by drawing the attention of pathologists and practitioners to those *local affections* which, if they do not *cause*, very often *accompany* the fever, and impress on it the chief modifications by which our indications of treatment are to be guided. On this account we deem it desirable that a more comprehensive knowledge of the facts and arguments brought forward by the two leaders, should be diffused generally through the profession, in a form that may secure an attentive perusal. We do not speak unguardedly when we aver that, not one in fifty of the profession in this country has a clear idea of the doctrine of the French pathologist—and that even the doctrine of Clutterbuck is far from being generally

understood among our practitioners—only one small edition of his work having been distributed during a period of nearly 20 years. The succinct *exposé* which we shall attempt of these two systems, will, we hope, prove a vehicle for the communication and concentration of a vast mass of important information, which, being scattered through many volumes, is inaccessible to, or unavailable by, the great body of medical practitioners. We shall endeavour to exhibit our author's line of argument and the spirit of his doctrine in the text, reserving the notes for our comments, when deemed necessary.

Dr. Clutterbuck's general or preliminary observations need not detain us long. They contain truths admitted by all. Thus he maintains that inflammation (a disorder of the vascular system chiefly) is the immediate cause of nine in ten of the great fatal maladies which afflict mankind. The following passage is substantially correct in the principle therein maintained; but, as will be seen in the sequel, Dr. Clutterbuck, as well as M. Broussais, has made it the pillar on which, almost, the whole weight of his edifice rests.

“A disease may consist merely in *disordered action*, occasioning either altered feelings, or disturbance of functions, or both; without any perceptible *alteration of structure* in the part affected. In such cases, dissection after death can afford us no insight into either the *seat* or *nature* of the disease.” 3.

“Inflammation,” says Dr. C., “is *primarily* and essentially a state of *disordered action merely*, though leading eventually to *alteration of structure*”*. We agree with Dr. C. that changes may take place at, or subsequent to, death, which sometimes lead astray—taking away, in some cases, the marks of *very recent* inflammation—and producing appearances, in other cases, that seem the effects of inflammation, where none really existed. Farther we agree, to a certain extent, with our author, that, “dissection, for the most part, shews the *consequences* only of diseased action, and gives but little insight into the nature of the action upon which those consequences depend.”†

* Is it a fact, that we characterise by the term *inflammation* that which presents no visible alteration from the healthy state? Let us take the conjunctiva, for example;—do we say it is *inflamed* when nothing unusual can be seen in it?—Is there no *alteration of structure* when a tissue is changed from transparency to opacity—from whiteness to blood-redness? Surely every part that is *inflamed* (according to any definition which Dr. C. may select) is *altered* in its structure from a state of health. We grant, indeed, that *disordered action* may, and does, precede this visible change of structure; but it is not inflammation till something can be seen.

† We admit, and have often urged this point, that the appearances on

Morbid anatomy, therefore, in Dr. C's opinion, "is of limited use and application in the practice of medicine." Diseases must be judged of chiefly by their symptoms. But diseased actions are not always accompanied by *sensation*. The lungs, brain, and other parts have been found disorganized after death, where no pain was previously complained of. If diseases cannot always be detected by feelings of the organ, they are sometimes discoverable by the affection of other parts that are sympathetically connected with them. "Thus, we are enabled to trace many affections of the stomach, of the vascular system, and of other remote parts, to a disordered state of the brain."

7.* Dr. C. goes on to observe that no part can undergo any material alteration, without some change in its functions. Thus, if the *brain* be the organ affected, sensation, voluntary motion, and vital energy (its functions among others) will suffer in proportion to the extent and degree of topical disease. This leads our author into many important remarks on primary and symptomatic affections and their symptoms, for which we must refer to the work itself. A division of diseases, he observes, has been made into local and general, and in the latter class, *idiopathic* fever is placed—the only reason for which is, in his opinion, "the more early and general disturbance that takes place in this, in comparison with other diseases." This early general disturbance, he thinks, may be accounted for on *local* princi-

dissection are more frequently the *consequences* than the *causes* of the disease of which the patient dies. But surely the morbid appearances very often give us an insight into the nature of the actions that were going on during life, and which led to the production of these *post mortem* phenomena. Look at the membranes of the brain—at the pleura—the peritoneum—the parenchymatous structure of various organs—do we not every day recognize in them the undoubted proofs of previous inflammation—although we cannot agree as to the precise *nature* of inflammation itself?

* We will do Messrs. Clutterbuck and Broussais the justice to say, that they have not only fortified themselves with much generalship, but they have provided themselves with most convenient postern gates for escape, in the event of being stormed in their respective garrisons. Thus, if Dr. Clutterbuck comes to a man in fever, with constant vomiting, pain and tenderness in the epigastrium, tongue like a beef-steak, but with the intellectual faculties perfectly clear, he tells us—"this is manifestly only a *symptomatic* affection of the stomach, the source of the phenomena being in the brain, as I have demonstrated in my work." On the other hand, if Professor Broussais visits a patient in the next bed, with raging delirium, black tongue, ferretty eyes, &c. but without a single symptom of gastric affection, he exclaims, "Ah! ma fois, here is a disorder of the sensorial functions purely *symptomatic* of gastro-enteritis, which is the fons et origo of all the phenomena which now excite your attention." Each leader supports his position with a host of arguments and analogies, and the poor eclectic is left in the dark, to struggle out of the labyrinth as he can!

ples. The simplicity or the complexity of an organ affected makes great difference in the phenomena of its diseases. Thus, if the pleura merely be inflamed, the symptoms are few—"and consist in little more than pain in the affected part, with an excited state of general vascular action." "In peripneumony, a much more extensive disorder takes place in the system, from the great importance of respiration in the general economy." "In this point of view, no organ will bear comparison with the brain, which exerts a paramount influence over all.*" Hence, Dr. C. observes, it is to be expected that "when the general substance of the brain is suffering from disease, the whole system will be drawn into consent, and a general disturbance of functions ensue."

CHAP. I. *Seat of Fever.* In endeavouring to assign the *primary* seat of fever, Dr. C. finds it necessary to examine the phenomena of the disease—leaving out of the question, for the present at least, those fevers which are evidently symptomatic of local inflammation, as of pneumonia, &c. In *idiopathic fever*, so called, "many of the most important functions are observed to be *disturbed*." The functions of digestion and assimilation are nearly annihilated, while that of absorption is increased. In many instances, the functions of the vascular

* Dr. Clutterbuck takes care to seize on every analogy, however remote, to strengthen his doctrine. Many of these analogies are more specious than solid—and some of them are absolutely erroneous. Thus, simplicity of structure does not always secure simplicity or paucity of morbid phenomena, as our author would wish us to believe. The pleura itself, when inflamed, produces more general distress and excitement through the system, than when the parenchymatous structure of the lung is the seat of disease. So inflammation of the peritoneum, which is a simple serous tissue, is a much more dangerous disease than inflammation of the parenchymatous structure of the liver or spleen—or of the mucous membrane, which is a far more complicated structure. The serous membranes, which are the simplest structures, have many more sympathetic connexions than the glandular or parenchymatous organs themselves. Peritoneal inflammation will completely suspend the function of the organ over which it runs—even of the mucous membrane beneath, as we see in enteritis. If we ascend to the head, these observations are still more strongly exemplified. The intellectual functions, as well as the corporeal, are infinitely more disturbed by inflammation of the membranes—especially the arachnoid membrane of the brain, than by inflammation of the substance—if, indeed, the substance be susceptible of inflammation, which is much doubted by some pathologists. Thus we see how badly these analogies and arguments of our author, will stand the test of rigid examination, although with the student, and with the inattentive or inexperienced reader, they may pass for strong auxiliaries to the doctrine advocated. It will be our business, in this article, to detect fallacies and expose sophistry, wherever we find them—nor will our labour be useless when so employed.

system, and of the kidneys, liver, and intestinal canal, continue to be performed “nearly as in health”—at other times, one or more of them are greatly disordered. But although the phenomena of fever appear, at first view, to be various and complicated, Dr. C. thinks that a careful examination of them will enable us to distinguish the *primary and essential* symptoms from those which are only secondary occasional occurrences.

Dr. Clutterbuck, in order to avoid any suspicion of colouring the phenomena to suit his theory, takes for his text, the concise but faithful portrait drawn by Fordyce. This extract is necessary for our purpose also, and we shall give it as Dr. C. has printed it, the words in italics being meant by him to shew the true *pathognomic* characters of fever.

“*First Stage.* ‘The attack of fever, whenever it can be distinctly observed, is announced by the following symptoms, in greater or less degree.

“ ‘(a) *Languor*, weariness, weakness, *insensibility of the extremities*; *blindness and insensibility* in the other organs of sensation; cold and trembling; *pain in the back*.

“ ‘(b) *Horripilatio*; the skin pale, dry, and of a dusky colour; a dry, foul tongue, and thirst; transparent urine; costiveness, and suppression of other secretions; paleness and dryness in ulcers; a small obstructed pulse, sometimes intermitting; pain in the limbs, joints, and *forehead*; *delirium*.

“ ‘(c) *Anxiety*; oppression and swelling about the præcordia; frequency of the pulse; quick and laborious respiration, sometimes with a cough; rigor, and horror; thirst, flatulency, loss of appetite, *nausea*, and *vomiting*.’

“These are the symptoms which constitute the first stage of fever, and are properly characteristic of it: ‘according to the violence of these symptoms at any time of the disease, the fever is violent; and when they are entirely carried off, it is cured.’

“*Second Stage.* ‘The symptoms of the *first stage*, above enumerated, soon give place to those of the *second stage*, which succeed each other in the following order:—‘Rigor and horror; heat arising from the præcordia, and diffused over the body irregularly, unequally, and with flushing; a strong, full, *obstructed* pulse; or a very frequent, small one; *pain in the head* and joints; *stupor and delirium*; *universal soreness*; redness arising in different parts irregularly; the urine high coloured, but transparent; sweating in the head and breast, or over the whole body; partial secretions.’

“*Third Stage.* ‘At last, the pulse becomes free; all the secretory organs are relaxed: hence the skin grows soft and moist, and returns to its natural colour; the tongue likewise is soft and moist, the belly is open, and the urine in greater quantity; if transparent when discharged, after a little time it becomes turbid and opaque, and at last deposits a

copious sediment; the secretions are often greatly increased; there arises a copious and universal sweat, or a purging, or a great flow of urine.'

"The frequency of the pulse, and all the other symptoms of the first and second stage, gradually subsiding, the patient recovers his health, but is considerably weakened."

We need not notice the extracts which Dr. C. has taken from various other authors, corroborating the above description, since we fully admit its general correctness, and shall join issue with Dr. C. on the document as it stands.

Dr. Clutterbuck's doctrine is then as follows :

"1. *Idiopathic* fever, as it is termed, is essentially a *local* disease, and not *primarily* a general affection of the system, as has commonly been believed.

"2. The proper and exclusive seat of it, is the brain.

"3. It consists in actual inflammation of the general cerebral *substance*." 39.

Now, in this place we must take leave to observe, that when Dr. Clutterbuck brought forward his doctrine in the first edition of his work, he maintained that fever was inflammation of the brain *or its membranes*—agreeing most cordially with Cullen, that all idea of a distinction between inflammation of the *substance* and of the *membranes* of the brain was futile.* But now it is quite another story. Fever consists of inflammation of the *substance* of the brain—and the distinction between the membranous and parenchymatous inflammations, not only "really exists," but is "discoverable by the symptoms."—*2d Ed. p. 169.* The reader may be curious to know the reason of this discrepancy of doctrine in the two editions. To us it is very obvious. Twenty years ago, the pathological anatomy of the brain had not arrived at its present pitch of minuteness. Since that period, the effects of inflammation on the *membranes* of the brain have been as clearly demonstrated as the effects of the same disease on any other structure of the body.† And as *post-mortem* examinations of fever patients have not shewn these effects, the *membranes* have been discarded, and we are led into the *substance* of the brain, which, being impermeable by the finest injections, is not accountable for what passes there in fever—is not amenable to the scalpel,—and is, therefore, the very best theatre possible for placing a proximate cause whose existence is to be proved by *reasoning*, and not by the evidence of the senses.

* See page 140-1 of First Edition.

† See our Analysis of Duchatelet, for instance, on Arachnitis, Vol. 2, p. 195, et seq. last Series.

Here, however, Dr. Clutterbuck's memory has been rather defective, and we must refresh it. We know that the effects of inflammation on the *substance* of the brain are not so numerous or so easily ascertained as in the *membranes*; but still they have been ascertained by unbiassed pathologists, and they do not correspond in symptoms with fever.* In Dr. Clutterbuck's anxiety to draw the distinction between parenchymatous and membranous inflammation of the brain (which he formerly denied) he has been led, not only into error, but into inconsistency. Thus, at p. 169 of the present edition, he remarks:—"An affection of the membranes *exclusively*, can have no power to produce disturbance in the *functions* of the brain." And yet he almost immediately afterwards observes—"undoubtedly inflammation of membranes may, by contiguity of parts, and continuity of vessels, be a source of irritation to the brain, and thus, in some degree, *disorder its functions*, without the existence of actual inflammation." Surely these two passages are in direct contradiction to each other. The truth of the first sentence we dispute. Every pathologist who has watched the living phenomena and compared them with the *post mortem* appearances, well knows that inflammation or even irritation of the serous membranes, especially of the brain, will disturb, and that most powerfully, the functions of the encephalon, both physical and intellectual. Our readers will see, by turning to our account of Parent Duchâtelet's work on Meningitis, that, in inflammation of the membranes, especially of those covering the hemispheres, *delirium*, and every lesion which Dr. C. attributes to inflammation of the substance of the brain, are "early and regular characteristic phenomena." In short, the whole of the investigations carried on by our neighbours as well as ourselves, during the last fifteen years, contradict, most completely, the following assertion of Dr. Clutterbuck's. "Simple inflammation of the *membranes* of the brain does *not*, therefore, produce phrenitis, which, in the ordinary acceptation of the term, is characterized by great disturbance, in one, at least, of the sensorial functions."—171. Dr. C. may characterize *phrenitis* as he pleases, but we maintain that inflammation of the *membranes* will produce *delirium* and great disturbance, not of one only, but of almost all the sensorial functions. For proofs, we refer to histories and dissections—whereas Dr. C. gives us nothing but argument and assertion.

† See our review of Lallemand's work on the Brain, for instance, vol. iii. p. 465, et seq. last series. See also the writings of Roston and many other able pathologists.

Dr. Clutterbuck has taken up a great portion of his volume in describing the disturbed state of the sensorial functions in fever, as those of sense, voluntary motion, and intellect. No one can deny—no one has ever denied, or indeed failed to notice, these lesions of function in fever—but the question at issue is, “are they owing to *inflammation* of the brain?”—This we deny. At the same time we are ready to admit, and, indeed, we have always maintained, that the *sentient system* is that which, from observation of the phenomena, appears to be the first implicated in fever—or the first on which the cause of the disease operates. This circumstance, and the universality of influence which the nervous system exerts on all the functions and structures of the body; have given Dr. Clutterbuck’s theory a decided superiority over that of Broussais, and render it much more capable of defence, and, consequently, much more difficult of demolition. Nevertheless we shall proceed to the trial.

First, then, we propose to shew that fever does not present the phenomena (in the living or the dead body) of inflammation of the brain, which we shall term, for shortness, phrenitis; and, secondly that, although phrenitis exhibits the general phenomena of fever, *at certain periods or stages of fever*,—yet, that it does not correspond with fever, in its origin, progress, termination, cure, or *post mortem* appearances.

The first dawning of idiopathic fever, as it steals on, almost imperceptibly, offers convincing proof that the brain and nervous system are affected by something that *depresses* their natural energy, and *weakens* the functions depending on them. The individual complains of languor and debility of mind and body—his limbs totter—the tongue trembles—the sight wavers—the senses are obtunded, depraved, or sometimes lost—the pulse is weak—the breathing quick, feeble, and interrupted by sighing—the features shrunk—the eyes lack lustre—the secretions diminished—the appetite gone—the urine limpid and small in quantity—the skin cool, pale, dry—the bowels costive. Can any train of symptoms be more indicative of a *depression* of the sensorial functions—and of all the other functions connected with the sensorial? This state will continue for days—nay, for weeks, with very little variation. The scene then gradually changes, until what is called a *reaction* is established, in which *every* one of the former symptoms is *reversed*. We say *every* one, not even excluding the intellectual functions. For, although we do not maintain that the mind, from a state of depression, rises into that of preternatural vigour, yet it certainly changes into a state the reverse of the former, inasmuch

as it becomes morbidly *irritable*, and all the senses morbidly acute. This state of reaction goes on, with evening exacerbations and morning remissions—or with complete intermissions on alternate days, for weeks together—gradually going off, without the least aid from medicine, and leaving the patient almost a skeleton, requiring some months for convalescence and ultimate recovery.

This is the *general portrait* of idiopathic fever—and it is by this that we are to be guided—not by anomalous cases or exceptions, where inflammation of this or that organ may have taken place at an earlier or later period of the fever. If we draw our conclusions from this last class, we shall readily confound right and wrong.

How does the above portrait correspond with the fever produced by local inflammation, with which it is confounded by Clutterbuck, Broussais, and many other physicians? We say it does not correspond with these symptomatic fevers. In these last, there is an evident local inflammation, as of the lungs, liver, stomach, &c. evinced by the proper symptoms of local pains—and of a disproportioned derangement of function in the organ affected. It is very true that an inflammation of the bowels—nay, a compound fracture of the leg, may produce a fever which, at a certain *advanced stage*, will present all the phenomena of idiopathic fever, at a *similar stage*; but look at the origin, course, and cause of each, and, while the resemblance is admitted, their identity will be denied. Look at the treatment required. In idiopathic fever, we may remain passive spectators, and five out of six will recover. In phrenitis, or other inflammation of an internal organ, if we look passively on, five out of six will die!

It is true that when the brain (the source of sensation, motion, and intellectual operations) is inflamed, we have then a disease which, though local in its seat, is general in its symptoms—and it is this circumstance that has given all the plausibility to the theory against which we are contending. But still, if we examine minutely the fever produced by inflammation of the brain, we shall find that it resembles, essentially, all the other symptomatic fevers, except in the universality of its symptoms, and that it does *not* correspond with the idiopathic fevers. In phrenitis, as in pneumonia or enteritis, the fever is regulated by the state of the local affection—and the pulse harmonizes with that in the other phlegmasiæ. In *phrenitis*, there are very generally the local signs of cerebral inflammation, in addition to the general phenomena of fever:—In *idiopathic fever* the symptoms of local inflammation are seldom, comparatively

speaking, present ; for mere head-ache, or even delirium, is no proof of inflammation of the brain. There are scarcely any of the phlegmasiæ in which head-ache and evening delirium are not present, when the symptomatic fever runs high. In *idiopathic fever*, after the period of excitement, of greater or less duration, a stage of debility or collapse ensues, which is often of much longer duration than the previous one of excitement. This is not the case in true phrenitis. When the inflammation is subdued, nothing remains but a degree of weakness corresponding with the violence of the inflammation and the effects of the remedies. The termination of the two diseases, when fatal, is very different. In fever, Dr. Clutterbuck himself acknowledges, the delirium often subsides before death, and the sensorial functions are regularly performed. Do we ever see such a restoration of function in fatal inflammation of other viscera, as of the lungs, intestines, &c.? No, verily. But the inevitable rock on which every theory must be wrecked, which assigns local inflammation as the cause of the phenomena, is the *periodicity* of fever. Intermittent fever is the original and the purest type of all, in which the three stages are exquisitely delineated—and yet this fever will leave, every second day, a clear apyretic period, for months in succession. No sophistry can torture this into inflammation of any organ. This last is a disease which cannot come and go in this manner, without leaving symptoms of its previous existence in the living, and demonstrable evidence in the parts after death. *Irritation* indeed, or any morbid condition which only reveals itself by pain or other phenomena, while itself is invisible, may be periodical ; but inflammation is not one of those imperceptible or untangible agents. It is visible—it is an actual change of structure, and we cannot admit its existence, without ocular proofs. These proofs then, we think, Dr. Clutterbuck has failed to produce, as far as living phenomena are concerned ; and if we look to dissection, the prospect is still more gloomy for our author's theory. Dr. Clutterbuck, indeed, is so conscious of its instability, in point of pathology, that he labours hard to throw an air of discredit, not to say ridicule, on post mortem researches in fever. First, the delicate structure of the brain renders it “ unfavourable for accurate examination ”—then “ it more quickly undergoes a change in its texture than almost any other organ. ”—But the best argument against dissection is this :—

“ It is to be considered, that by far the greater number of demonstrations of the human body, given by anatomists in the schools, and from which our knowledge of the structure and appearance of the brain is principally derived, are of subjects destroyed by diseases, many of

them, no doubt, of this very organ. And when we reflect, further, on the sources from which the anatomical theatres are chiefly supplied, namely, the most indigent classes of society, a considerable number of whom are daily cut off by fevers, it must appear highly probable, that what is considered and exhibited as the natural and healthy state of parts, is often in reality a diseased one, perhaps the immediate consequence of fever itself, and which we have not yet learned clearly to distinguish from the state of health." 198.

Really this is too much ! Then we are to set aside, as nothing, the innumerable dissections which have been made of patients who, in their lives, presented the symptoms of encephalitis and meningitis, and who, after death, exhibited the most unequivocal effects of the inflammation, as regular and as well defined as the effects of inflammation in any other organ of the body ! Are we really so ignorant as not to be able to distinguish brains exhibiting these appearances, from brains exhibiting no appearances of the kind ? Can we not tell a dura mater that is pale from one that is red*—one that is thin from one that is thickened—can we not distinguish a dewy vapour between the membranes from a flood of serum or flakes of coagulable lymph—are we so blind as not to see the difference between a tunica arachnoidea as transparent as crystal and thinner than cobweb, and one that is as thick and as white as fools-cap paper ? Is hardness, softness, vascularity—suppuration itself, in the substance of the brain, nothing that can lead to any determinate idea, even when connected with a train of well-marked and carefully noted symptoms before death ? Nothing ! "We have no certain standard of health," says Dr. C. "to which we can refer them, as objects of comparison." Con-

* If the following be a fact well authenticated, the public demonstrator of anatomy alluded to ought to be publicly exposed, and turned out of his situation.

"The brain of a person dead of small-pox was exhibited before a number of students, in the ordinary course of demonstration, in the dissecting-room of a public teacher of anatomy. And although the blood-vessels in general were turgid, and the membranes in many parts suffused with blood, like the coats of an inflamed eye (appearances that are very commonly observed after small-pox, and, as far as my observation has yet gone, in greater or less degree, in fevers in general,) no notice was taken of circumstances so strongly indicating inflammation ; and, of course, the students went away impressed with the idea, that what they had seen was the natural state of parts." —193.

This, we repeat, was unpardonable, and almost incredible. We hope the circumstance has been exaggerated by the person who communicated it to Dr. C. ; for had he been present, he must have taken notice of such a piece of glaring pathological ignorance.

sidering the numerous and minute investigations, as to the state of the brain in fever, which have been made in all parts of Europe as well as in these Isles for many years past, we can hardly pardon Dr. Clutterbuck for *repeating* the following sarcastic remark after a lapse of twenty years. "I am inclined to doubt, indeed, from the inquiries I have made, whether half a dozen such dissections have *purposely* been instituted in this metropolis, within as many years last past." Is this not a libel on the Fever Hospital? Surely in that institution alone five times the number of brains have been *purposely* examined among the patients who die of fever there. Be this as it may, there is no lack of authentic documents respecting the appearances on dissection, in fever, as the readers of this Journal well know;—but—*the grapes are sour!* These dissections do any thing but prove the ingenious Doctor's theory, and, therefore, they are depreciated. But, notwithstanding this utter worthlessness of dissections, Dr. C. has taken good care to collect, from every point of the anatomical compass, all the more striking testimonies—that are in his own favour—leaving the drudgery of quoting the adverse testimonies, or the adverse portions of the same testimonies, to his opponents. This may be good in *law*—but it is very bad in *physic*. Thus, Dr. C. quotes the venerable Jackson, as far as relates to the appearances in the *brains* of those who died of yellow fever—but not one word as to the *other organs* of the body—and so on, from Bonetus down to our own times. But it is very obvious that our able author is far from satisfied with all this gorgeous display of cerebral *adversaria*, so studiously gleaned from the dead and the living.

"A host of other instances," says he, "might be adduced to prove, that fevers of all descriptions very frequently leave behind them visible topical affections of the brain, demonstrating the existence of previous inflammation in that organ. It is not, however, to be imagined, that the appearances now mentioned are to be found in every case of fever. The *essential* part of this, as of most other *primary* diseases, consists, not in the altered structure of parts, but in morbid action: change of structure is a remote effect, a consequence, merely, of the morbid action, and is what may or may not take place." 216.

Now, we maintain that inflammation is *change of structure*—and we perfectly agree with Dr. C. that this is—"a remote effect, a consequence merely of morbid action." Surely Dr. Clutterbuck will not attempt to prove that *morbid action* is inflammation—for if it is, then we have inflammation in every organ in the body, as he has shewn that all the functions are in a deranged—that is, a morbid state. This very passage destroys his theory. He is driven up into a corner, *even by him-*

self, where he is obliged to admit that there is often no other proof of inflammation in the brain than *derangement* of its function—a derangement common to *every* other organ in the body, during fever; but which he will not admit to be any proof of inflammation, except in the brain!

“ In an organ of such importance in the animal economy, and which so materially influences the actions of other parts of the system, it is easily conceivable that such a degree of *derangement* may take place as even to prove fatal, without leaving behind it any *visible* traces: and in reality, such has *often* been the case.” 208.

Thus Dr. Clutterbuck, not being able to substantiate his doctrine in the *visible* world, very ingeniously repairs to the *invisible*, forgetful of the scholastic axiom, “*de non apparentibus et non existentibus eadem est ratio.*”—Did it never occur to Dr. C. if he was in search of truth, and not of materials for a theory, to ask himself this question—if the organization of the brain be so very delicate that its functions may be annihilated before there is time for any visible change in its structure, how is it that, in by far the majority of cases where we have reason to suspect inflammation, its ravages are clear as the sun at noon-day? If, indeed, life was cut off in the first onset of fever, there might be some reason for arguing that the sensorium was overpowered, and that there was not time for the production of organic changes; but when we see men linger out for 12, 14, or 21 days, with all the phenomena of idiopathic fever, and yet the brain unaltered in appearance, the conclusion is irresistible, in the unprejudiced mind, that the seat of inflammation was not in the brain. Do we see the phenomena of inflammation continue so long in the lungs, liver, or intestines, and on dissection these organs presenting no trace of alteration? No, truly. And surely organs of so much stronger a construction than the brain, ought to be able to withstand *derangement* of function, morbid action, or whatever other term Dr. C. may apply, for a longer period than the brain, without being altered in structure.

If Dr. C. in collecting evidence respecting the pathology of the brain in fever, has passed over the statements of adverse authors, and the adverse statements of the authors which he did quote, he comes upon them by a side-wind, in the shape of a rapid review of the opinions of ancients and moderns, in regard to the seat and nature of fever. It is very easy to conceive that their theories are demolished much in the same way that a dog would demolish a whole posse of mice—they are slaughtered, without remorse, and their then lacerated members

thrown to the winds. The lives of a very few are spared with only the slight sacrifice of a limb or two. The first act of mercy which we notice is in the case of Mr. now Dr. Peiw, who, more than "20 years ago,"* broached a doctrine of fever bearing some analogy to Dr. Clutterbuck's. It was *congestion* of blood, however, in the brain—whereas, the doctrine is now inflammation. The late Dr. Home, of Edinburgh, is also spared, in consideration of a confession which he made on the bed of sickness, that he had had an inflammation of the cortical part of the brain in the shape of a low nervous fever. But a circumstance has here surprised us extremely. Dr. Clutterbuck has never once alluded to PLOUCQUET, whose doctrine of fever, as published at Tübingen, in two theses, 1800 and 1801, is so exactly that of our author, that Dr. Beddoes has filled sixteen pages with a parallel of the particular propositions in which the doctrine is propounded, and where the coincidence is such that, as Dr. Beddoes observes, "the English may often seem a diffuse translation of the Tübingen Professor."—Was this proper? was it candid to quote a few authors, whose doctrines nearly approached, and went to the *support* of his own; but to draw the veil of oblivion over Ploucquet's, which completely *anticipated* it? This is a question which Dr. C. may find it difficult to answer in a manner satisfactory to others.

Before quitting the subject of pathology, we may advert to the way in which our author endeavours to disentangle himself of the awkward fact, that the traces of inflammation are as often—nay, oftener found in the viscera of the thorax and abdomen than in the brain. Nothing is more easy than the explanation.

"One obvious cause of obscurity with regard to the *primary* seat of disease in fever, and a reason why dissection has failed to point it out, is that patients are often cut off by the *consequences* of fever, rather than by the fever itself; by inflammation of other organs coming on during its course, modifying the character of the original disease, and ending in disorganization of the part *secondarily* affected." 217.

And why, we ask, may not the inflammation of the brain come on *secondarily*, as well as that of other organs? The only reason which Dr. C. can possibly give is, that the first phenomena of fever are shewn in the nervous system. But we say again that the *first phenomena* of fever are *not* the pheno-

* This pamphlet was published in 1785, which is just 41 years ago, and yet Dr. C. allows the expression to stand as it was first written in 1805. Surely this is misleading the public, and not doing the duty of revision in new Editions of works.

mena of *inflammation*, but of depression. The symptoms of inflammation, when they do occur, always rise during the *reaction* which succeeds, and *then*, they do not always shew themselves *first* in the brain, but often in other organs, and often not at all in the head. We cannot, therefore, agree with Dr. Clutterbuck—"that the symptoms of fever are the symptoms of inflamed brain"—and "that fever and inflammation of the brain are identical affections." p. 220. If we did, we must admit that there is inflammation of the brain in every case of small-pox, measles,—nay of compound fractures or gunshot wounds—for in *all these* we have *all* the phenomena of idiopathic fever, when the latter is completely formed.

Dr. Clutterbuck rests a good deal, for support of his doctrine, on the nature and operation of the *remote causes* of fever. Whether we confine these, as Cullen did, to marsh and human effluvia, or extend them, as most modern observers do, to a considerable number of agents, as atmospheric changes, intemperance, agitations of mind, &c. we see no reason to suppose that all or any of these causes should tend exclusively to produce inflammation of the brain. We grant, indeed, that most of the febrific agents tend to disturb the function of the brain and nervous system—but what morbid agent does not the same thing? Why should the effluvium from a marsh inflame the brain? It is not first applied to that organ, and the symptoms of the fever which follows as well as the appearances on dissection, shew other organs, as the stomach, bowels, liver, and lungs, more frequently affected than the head. For proofs of this, we may refer to all the best modern writers on marsh fevers. Dr. C. seems conscious that he has tender ground to tread on in etiology. He acknowledges that—"of some of the causes of fever, it is difficult to assign the mode of acting;" but of others, he thinks, the mode is manifest enough—and very appropriate for his doctrine. He, therefore, singles out *intoxication*, "which when carried to a great excess, is often succeeded on the following day by head-ache, increased heat, and other symptoms scarcely, if at all distinguishable from fever generated from other sources." It is rather unfortunate for our author's theory, that this fit of intoxication does not once in 999 times produce a fever—or any other effects that last more than twenty-four or forty-eight hours after the debauch. It is still more unfortunate for the illustration, that a pint of wine (as Bacchanalians well know) will generally put an end to this fever—or this inflammation of the brain, on the evening of the day succeeding the debauch. The fact is, that the head-ache and other febrile symptoms, *post inebrietatem*,

are more dependent on the stomach than on any other organ—and when the atony of this organ is moderately stimulated the next day, the whole of the nervous symptoms vanish.

In respect to mental causes, every body knows the influence of the mind over the functions of the body; but whether we look at the case quoted by our author from Van Swieten, “of a girl who, when in health, being terrified at the unexpected sight of a dormouse, fell immediately into a quartan ague, which continued to recur for a whole winter;”—or the other more classic case recorded by Pliny, of “Quintus Fabius Maximus, who was cured of a *quartan ague* instantly on entering into battle with the Allobroges and Averni,” we can see nothing in either of them to support the doctrine, that fever is inflammation of the brain. If the sight of the dormouse did produce the quartan fever—and if fever be inflammation of the brain, how the devil did it happen that this inflammation rested from its labours—or, at all events, shewed no proofs of its existence during two days out of three for a whole winter? On the other hand, how did the conflict and excitement of a battle cure inflammation of the brain in Quintus Fabius Maximus? In our humble apprehensions, both these cases, allowing them to be authentic, make directly against the doctrine in question, by shewing the facility with which the phenomena of fever may be raised or removed by the *same* cause. This would be very unlikely to happen if the case was phrenitis!

We shall notice only one more etiological illustration brought forward in support of Dr. C’s doctrine. He says, it is remarked that maniacs are less liable to fever than other people, probably from “a defective or morbid condition of the brain,” which renders them insensible to a variety of impressions, both internal and external. Of this immunity from fever we have some doubts—but if a morbid condition of brain be a protection against inflammation of that organ, it is contrary to all analogy at least—for nothing is more certain, than that the morbid condition of any other organ in the body proves a powerful predisposition to inflammatory action, whenever the individual is exposed to the proper causes.

We have now only to speak of the treatment of fever in relation to the theory of our author. Here too, we clearly perceive the difficulties which Dr. Clutterbuck had to contend with, in order to draw any thing like support to his doctrine from the important subject of therapeutics. Dr. C. foresaw that this would probably be made the touchstone of his theory, and he has done all that human ingenuity could devise to strengthen this the weakest side of his camp. He sets out

with rather a disheartening sentiment, namely, that “it is hardly to be expected that any theory, however just in its principles, will, at once, materially improve the cure of fever, or detract much from its danger and fatality.” But he observes, and justly, that a true theory must be advantageous, inasmuch as it will keep us from doing harm where we cannot do good. Speaking of the routine practice in fever, Dr. C. makes the following sarcastic remark, in which we perfectly agree with him.

“For want of a distinct and intelligible object in view, on the part of the practitioner, and a desire of being active, the patient is made to undergo the whole routine of medical treatment; being, in turn, *bled, blistered, vomited, purged, and sweated*; and afterwards *stimulated* in various ways; one means being resorted to after another, for little other reason, as it would seem, than because the former had failed. A recovery, no doubt, often takes place, even under these circumstances, but it is probably less to be ascribed to art than to the powers of resistance of the constitution, the *vis conservatrix naturæ*; which is often not only an overmatch for the disease, but for the treatment pursued also.” 275.

As it is a well known fact that but few fevers, comparatively speaking, terminate fatally without leaving traces of local inflammation in some organ or other; so we are willing to allow our author all the support which the above knowledge may give to his doctrine, on account of the antiphlogistic mode of treatment so generally adopted in fevers during the present century. This antiphlogistic treatment is acknowledged to have been carried a great deal too far—and there is now some degree of recoil or reaction in the public opinion; but, granting that the practice is infinitely preferable to the Brunonian practice which preceded it, still we must remember that, were Dr. Clutterbuck’s theory correct, it is next to impossible that one in ten of the fever patients treated with bark, wine, and opium, could have survived—whereas we know, from the most authentic records, that they did recover—and not in a much less proportion than in the present day—probably for the reason advanced by himself in the last quotation which we have introduced. It is in vain for Dr. Clutterbuck to tell us that there are certain inflammations, as acute rheumatism and erysipelas, which are not to be cured by active bleeding—and that the brain may have its peculiarities, in this respect, and may not bear depletion when inflamed. If fever be a *specific inflammation* of the brain, differing in its nature and treatment from common inflammation, then Dr. Clutterbuck’s labours have been nearly in vain, for we are left just as much in the dark as ever.

It is quite needless, we imagine, to follow Dr. C. in his quotations from authors who have recommended blood-letting in fevers. They have, almost all, done so to *prevent* the occurrence of inflammation, or to check it when it had commenced in some organ, *during the fever*. In this they were perfectly right—and it is on this principle that all observant practitioners of the present day employ the lancet in fever. But the very circumstance of fevers being cured, in great numbers, by the most opposite plans, and especially by bark, wine, and opium, must carry conviction to every mind not warped by a favourite theory, that fever is not in its essence a local inflammation—and that still less is it a local inflammation of the brain.

We deem it unnecessary to dwell longer on the subject of treatment, since every practitioner, of any experience, will immediately see that Dr. Clutterbuck's theory will not apply to practice at the bed-side of sickness—at least as far as blood-letting is concerned. The following passage, alone, we think, will shew how inapplicable is the theory to therapeutics. "As a general principle, it may be observed, that the more the *sensorial* functions are disordered and oppressed, the less likely will blood-letting be to prove effectual."—p. 351. If this be the case, how is the practitioner to be guided? Let us apply this reasoning to any other organ inflamed—say the lungs. "The more the *pulmonary* functions are disordered and oppressed, the less likely will blood-letting be to prove effectual!!" Here we see how bewildering is the doctrine, when brought to bear on actual practice! In fine, we are convinced from a long and attentive observation of the phenomena of fevers, as well as study of their pathology, that the only safe theory to bring into the bed-room is the belief or opinion that fever is a general disorder of the system, which may or may not produce local inflammation, according to the condition of those organs, or the idiosyncrasy of the patient—and consequently, that depletion is to be proportioned to the degree of general excitement—always remembering that there is a stage of debility to succeed—and that we are not to deplete as if the general excitement were the consequence of local inflammation. The next thing to do is, to watch *where* the local inflammation falls, if it takes place at all—and meet it by local rather than by general means. This comprises the whole plan of indications in the stage of reaction. When the powers flag and the constitution begins to run down, then it is that the young champion for local inflammation feels the treachery of the doctrine on which he reclined, and will often have to deplore the freedom with which he acted previously. The great diffi-

culty is to hit the happy point of safety, in neither depleting too much nor too little, in the early stage of fever, since error on either side leads nearly to the same bad consequences in the end. A violent and uncontrolled excitement cannot go on long without producing such disorder in some vital organ as will render the winding up of the fever doubtful or dangerous. A too great reduction of the powers of nature, at ever so early a period of the disease, will lead to a similar result.

We give Dr. Clutterbuck great credit for supporting his doctrine with all the force which ingenuity, erudition, study, and long experience could bring to bear on the point. The doctrine, indeed, is advocated with such skill and plausibility, that it is almost certain to captivate the judgment of the young and inexperienced. Thirty years ago we would have embraced it without hesitation, but we think that ere now time and observation would have cured us of the doctrine. We think it is a doctrine that is dangerous—though perhaps not so much so as Brunonianism. But it is very seductive to the young mind—and on this account we have taken more pains to point out its fallacies than we otherwise should have done. With proper precautions, its perusal will afford the practitioner as well as the student, a fund of information on all points respecting the etiology, symptomatology, pathology, and treatment of fever.

But it is now time to turn to M. Broussais, whose writings we have often noticed, and whose doctrines we have frequently criticised, as our readers well know. In the second number of our Quarterly Series, (September, 1820) we gave an account of Broussais' Observations on Peritoneal Inflammation. In the succeeding Number of the same Series, (September, 1820) we exhibited the Professor's Treatise on the Mucous Membrane of the Lungs—in No. 5, (June 1821) we reviewed M. Broussais on Affections of the Mucous Membrane of the Digestive Organs—and in a late Number of the present Series (No. 6, for October, 1825) we took occasion, while reviewing Montfalcon on Marshes, to introduce some strictures on M. Broussais' New Physiological Doctrine of Fever. Still we have never yet given any thing like a full view of this now celebrated doctrine, which has made a prodigious number of converts on the Continent, but not without a most spirited—indeed violent opposition. M. Broussais has been infinitely more active than Dr. Clutterbuck in the support and propagation of his doctrine. He has not suffered twenty years to elapse between his first and his second publication, as our phlegmatic countryman has done. No, No. He and his numerous disciples never let a year, or hardly a month

pass, without urging their cause, *vi et armis*. They seem to have adopted the plan of Mahomet—"propagate the doctrine of Islamism by persuasion—but if persuasion fail, use the sword." They seem also to have taken a leaf from other churches than that of the Prophet. "The *end* shall justify the *means*." Fanaticism and enthusiasm are not confined to religion and politics. They mix themselves with all sciences that have not mathematical exactness for their basis—and it is hardly necessary to say that medicine is not *yet* a science of the latter class, though this is positively insisted on by the disciples of Broussais. "Medicine is become a science founded on *invariable* principles."—Preface, p. ix. Would to God that this was the case! Periodical criticism would then indeed cease to exist, but the public would be infinite gainers by a uniformity in the practice of medicine. This epoch, however, is not yet arrived; but it may not be lost time to give the English reader some idea of this new system which is said already to have attained the height of a demonstrable science. It would perhaps be more regular to give an analysis of M. Broussais' professed work, the "Examen des Doctrines Medicales," rather than that of his disciple, the anonymous author of the "Conversations;" but, on examination, we find that the doctrines of Broussais are fairly embodied in the *latter*, with some new touches—doubtless from Broussais himself, who is the grand mover in the medical drama now acting on the Continent. We shall have occasion, however, to advert to the "Examen" itself, in the course of this article—particularly that portion of it which is dedicated to the medical literature of this country, and where we shall have a crow to pluck with brother Broussais.

The disciple of the new doctrine, introduces the subject by a "personal narrative," of which we shall take very little notice, except where it bears immediately on the subject. Having composed and sustained his thesis in Paris, and obtained the Doctorate, he retired to his native town, where his first patients were, as usual, the members of his own family. His father became ill, and the following extracts will serve well to open the business on which we are entering.

"For several weeks, my father complained of a slight derangement in his health. The emotion caused by my return, excited occurrences that interrupted our joy. His head became painful; he complained of a sensation of extraordinary fatigue in his limbs, and particularly in the regions of the back and loins; fever manifested itself, though moderate; his tongue appeared covered with a thick foulness, yellowish in its centre, whilst it was red in its circumference and at the extremity. He felt acute pains at the pit of the stomach; he had a bitter taste in the

mouth, and a continual inclination to vomit ; nor could he divest himself of a fatal presentiment, affirming, that my return would inflict upon him the stroke of death ; but this kind father consoled himself in the reflexion, that he would leave me behind with an honourable existence, and worthy of the sacrifices he had made for me. This conversation was heart-rending ; but the confidence I had in my extensive information straightway encouraged me. It is but a deranged stomach, *embarras gastrique*,* with fever, said I ; to-morrow you shall take an emetic, and all will be well. The night was restless, and the emetic, which I administered myself largely, produced abundant evacuations. A visible amendment was perceived after its effects ; the tongue became more clear, and red in its whole surface. I confidently triumphed : but towards evening the symptoms redoubled their intensity ; the fever acquired such a degree of violence, that my hand could scarcely support the heat of the skin, especially at the epigastric region ; the beating of the pulse was accelerated ; the tongue, from the scarlet red became brownish, contracted, pointed, and dry ; a parching thirst succeeded to the bilious and clammy taste. The sensibility at the pit of the stomach appeared more acute, and that of the limbs was so excessive as to force cries from my father, who no longer dared to use any motion.

“ This exasperation did not much alarm me : it is a gastric fever that declares itself, said I to my father ; and you are very fortunate in having been relieved of your *saburra*, for it might have assumed an adynamic character. What alarms you at present is no more than the inevitable augmentation in these disorders ; but to-morrow you will be better, and the fever will terminate favourably the seventh day : in the mean time drink veal broth to refresh yourself, tamarinds with whey, in order to keep the body open, and arm yourself with courage and hope.

“ The third day, the fever, in place of subsiding, as I had predicted, was aggravated ; the pain in the head was excruciating ; the most intolerable thirst was rather exasperated than appeased by liquids, which now went strongly against the stomach of the patient. The face was flushed, and delirium at intervals perceptible.

“ These symptoms alarmed me. The head is threatened with a congestion, said I to myself ; the fever is not only gastric, but puts on the character of the ardent fever, or *causus* of Hippocrates. Let us immediately try bleeding in the foot ; but let this be moderate, for I observe some tendency to ataxia ; and a too copious loss of blood may cause this to degenerate into adynamic fever.

“ The patient was bled, and was relieved, but he was near fainting ; and this slight accident having confirmed my fears, I thought it my duty to raise the powers a little, by administering a few cups of a weak vinous lemonade. Scarcely had a few doses of this fresh specific been

* “ *Embarras gastrique*, the first species of the second order of febrile diseases of the French nosologists ; the symptoms are, head-ache, anorexia, bitter taste in the mouth, a yellowish or whitish coat on the tongue, nausea, particularly in the morning, pain at the epigastrium.—*Note of the Translator.*”

given, when the fever revived, not with a pulse large and full as before, but with pulsations shrunk, and as if convulsive. The tongue put on a brownish colour. My father no longer complained of any pain, but he became totally delirious. His strength was fallen, his limbs agitated by those movements which we call *subsultus tendinum*. I saw in this stage the combined symptoms of ataxa-adyynamic fever, or, to speak the old jargon, putrid malignant, and I was preparing to inflict the last stroke on my unfortunate father, by administering the pure wine of cinchona, camphor, musk, and the serpentaria of Virginia, when an occurrence, as fortunate as unforeseen, preserved me from the parricide I was about to commit." 7.

Our author was prevented from committing parricide by the lucky interposition of an old fellow student who, while in Paris, had become a convert to the new doctrine. His friend declared that the disorder was *made* by the mode of treatment, and that it might have been checked in the beginning by leeching the epigastrium. The son yielded, and the friend stood physician.

" Fifty leeches were applied on this same evening; and their punctures bled abundantly during the whole night. In proportion as the blood flowed, my father recovered his intellect and strength; he repeated over and over, I am saved! I was overpowered with joy. On the morning of the fifth day, the fever was entirely gone, but the weakness alarmed me. I wished the patient to take some beef-broth; but my friend objected to it, assuring me that this light restorative would be sufficient to renew the whole mischief. I yielded. We left the patient to enjoy a profound sleep during the greater part of the day. But judge of my surprise, when, at his awaking, he asked for food, alledging that he was perfectly well, able to get up, and had no other illness than weakness and hunger. Still nothing was given him but a little lemonade, after which he again fell asleep. The next day he had some broth; the day after beef broth, and he got up. Calculating from this time, he only complained of extreme hunger, which was satisfied with caution; and his convalescence was so rapid, that four days afterwards there was no longer an appearance of his having been indisposed." 9.

The conclusions which the novitiate was obliged to draw from this example were—that the derangement of stomach, with fever, was the first degree of inflammation of that organ—that this was exasperated by the emetic—that veal broth and whey were too stimulating for an inflamed membrane—that the bleeding from the foot was not copious enough, and was counteracted by the vinous lemonade—that one local bleeding near the seat of the complaint "is an hundred times more efficacious than bleeding in the large vessels"—that the inflammation must be left to subside entirely after the bleedings, before food is given. Finally, he candidly concluded that he

knew nothing of medicine—and that he must hasten back to study under the grand master.

The SAVANT here makes a remark, which is far from being satisfactorily answered—namely, that, as emetics often cut off fevers at the beginning, it is probable that they do not all commence with gastritis. The answer is—“because the evacuation of bile, mucus, and perspiration carries off the irritation of this organ,” in some cases ; but “he who prescribes an emetic, runs the risk of doubling the inflammation of the stomach, in case he does not remove it.” In hot climates, and especially in the yellow fever of the West Indies, we think the above reasoning is not inapplicable ; but it is far from applying generally to the fevers of Europe.

Savant. Then all physicians, hitherto, have been in error respecting the nature of fever. *Phys.* All. They wanted the principal facts on which science is erected. *Savant.* You are presumptuous—but not the only arrogant man in medicine. “The annals of this science attest the existence of a multitude of pretenders who exclaimed, in their ridiculous enthusiasm,—‘I have the true science—burn all books—listen to me.’ Paracelsus, Vanhelmont, Brown, and a great many others have held this language.”

Physician. Is it impossible to discover that which has not yet been discovered ? If I prove to you that we have discovered important truths, will you reject them because they happen to be of our time ? I will proceed to the development of my proofs. You have just seen a fever, in the first stage gastric or bilious, afterwards putrid or malignant, arrested in its first period, by the knowledge of a fact unknown to the ancients. This fact is that the fever depends on inflammation of the digestive organs—a circumstance of which the ancients must have been ignorant, for they did not arrest these fevers, but let them proceed, counting their days, and waiting for a crisis—or else they exasperated them by giving injurious medicines. Suppose, in a village, town, or hospital, a hundred disorders beginning like my father’s. If these are all met the first day by leeching the epigastrium, they will be stopped. If they are treated, as I treated my father, they will go on, “and a *moiety* at least of them will die.” Others will be prolonged, and leave to their victims a precarious health. Some will be cured, in spite of improper treatment, by the efforts of Nature, &c. In the first mode of treatment there will be no epidemic—in the second, there will be an alarming one. The sick, if together, will become a focus of infection, endangering the health of those who are obliged to approach them.

Savant. Prove to me by the *symptoms* that what are called idiopathic fevers are nothing else than gastro-enteritis.

Physician. With all my heart.

“ The bilious or gastric fever is only a gastro-enteritis, in a person whose digestive canal, much irritated, renders the locomotive muscles painful, and the bilious secretion very abundant. You have seen the symptoms and treatment of the disorder in my father. The mucous fever is the same disorder in a lymphatic subject, and in one whose digestive canal secretes a quantity of that mucosity called *slime*; it is characterized, according to authors, by a foul and clammy mouth, by aphtha, salivation, mucous vomitings, or stools of the same nature, pustules and scabs equally mucous, and by the slowness of its progress, which is only because the phlegmasia was improperly treated in its commencement. But it is now known that mucous secretions by the mouth or inferior channels, accompanied by fever, inappetence, thirst, pain or constraint in the digestive canal, pain in the head, or a sensation of fatigue and weakness in the limbs, indicate inflammation of the membrane called mucous, which lines the interior of the digestive canal from the mouth to the podex. The expression, ardent fever, imports a very high degree of heat and fever in these same affections. The adynamic fever, in which, we are told, the preceding terminate, is in reality nothing more than the gastro-enteritis, arrived at such a degree of intensity, that the strength diminishes, the intellectual faculties are blunted (which causes a sort of heaviness, called stupor,) the tongue becomes brown, the mouth is lined with a blackish coat or crust; but this dark colour of the mouth was preceded, in the commencement, by a bright red; the black mucous has been white, yellow, or grey, on the first days; and all this change has taken place because the inflammation was not stopped in the beginning. This fact is so certain, that one seasonable application of leeches removes the stupor in a few hours, forces back the brown colour of the tongue towards a shining red, cleanses the mouth of this mucous blackness, which rendered it, as we say, fuliginous, and re-establishes the force in the muscular system. The term putrid fever only indicates the fetidity of the breath, perspirations, and stools, that are joined to the preceding phenomena or symptoms. The malignant, or cerebral fever, is but the irritation of the brain, added by sympathy to the gastric inflammation, which produces the pretended bilious, mucous, and putrid fevers. For when the brain is primarily inflamed, this state is designated by the terms frenzy, *arachnitis*, or *encephalitis*; but it may so happen, that the irritation of the brain, although secondary, may rise to the degree of a true inflammation; or that of the digestive canal may be developed consecutively to the *encephalitis*, where the digestive canal is not very painful, or where the bile and mucosity do not abound; very intense, it approaches to the ardent fever: but it is often the first stage of all the others. So we are told by authors, that, if it does not terminate in a few days, it runs into gastric, putrid, or malignant fever; which infers, that the inflammation of the digestive canal, at first mild, rises to

a degree that causes debility, fetidity, or else is complicated with irritation of the brain.

“ These are the essential fevers of authors ; other inflammations may be associated with them, but this is not what has been pretended to be marked by the expression, essential fever ; for they had terms to indicate phlegmasia of the lungs, heart, liver, and other textures. The term, essential fever, with authors, only designed gastro-enteritis ; which not being known, made them believe in the existence of a general affection. They were ignorant that the fever was maintained by the phlegmasia. They could not reconcile it to that which they knew ; they considered it then as independent of any organ in particular ; as existing of itself ; in a word, as essential.” 21.

After animadverting on the conflicting opinions respecting the treatment of fever, the disciple of Broussais expounds the “ clear and precise” doctrine which guides the new school. Employ, says he, neither emetics nor cathartics at the commencement—if there be extreme plethora, bleed generally, though in most cases it may be dispensed with—the number of leeches must be proportioned to the strength of the patient, and the violence of the disease—the blood from the orifices should be permitted to flow, and especial care should be taken to enforce abstinence from nutritive drinks after the operation of the leeches. If the inflammation does not yield to the first application, it is to be repeated, as long as the patient is not exhausted—but if he was affected, previously to the attack, with chronic inflammation, and is now much fallen away, the curative means ought to be limited to emollients. It is with lemonade, currant jelly-water, or even pure water, to the exclusion of all soups or broths, that the disease is to be treated. At the same time the practitioner may employ lenitive enemata, the pediluvium, cold water or ice to the epigastrium or the head in hot weather and where there is no tendency to inflammation of the lungs. With these means calmly wait, till nature conducts to a cure.

From various causes the disease is sometimes protracted beyond a month ; but this is nothing to what takes place on the Brunonian plan. “ The irritation which they cause in the digestive organs, as soon as the patient’s strength begins to fail, hurries on the work of death, in the midst of convulsions and delirium. Sometimes, however, there are those who resist, and if they are not extricated by a violent crisis, they remain in a state of languor much more than a hundred days ; for their health continues precarious for a long time.”

In prolonged cases, treated on the plan of Broussais, the patients suffer so little, that many physicians seeing them quite

free from pain in the abdomen, have come to the erroneous conclusion that the fever may continue independent of its original local cause, being "ignorant of the fact, that the inflammation of the mucous membrane of the digestive canal is rarely painful—that in order to be known, it does not require the *local* sensibility:—the sense of obtuse pain in the limbs, the inaptitude for exercise, the frequency of the pulse, the burning heat of the skin, pain in the head, are sufficient to characterize it, when combined with redness of the tongue, inappetence, thirst, a higher degree of heat on the belly than on other parts, and, for a much stronger reason, the fuliginous appearance of the mouth, brown colour of the tongue, and stupor."

"They did not understand the mode of sensibility of the digestive canal, and knew not that this irritation is rather recognized by the influence it exercises over the other organs, and by the painful sensation developed in these, than by its own pains. But an attentive disciple of the physiological doctrine is not ignorant of these peculiarities. He recognizes the gastro-enteritis, without requiring to press forcibly the abdomen of a patient to cause pain; and on the slightest indication he at once attacks the disease, removes it, and anticipates the explosion of all those pretended fevers, which have been the torment of physicians in past ages." 27.

Savant. I can comprehend how a fever may be arrested, in the beginning, by bleeding; but when it is arrived at the state of adynamia or weakness, the antiphlogistic treatment would seem improper.

Physiologist. This is an error. *Debility* is apparent in the muscular system, because *power* is concentrated in the viscera, as proved by the excessive heat, reflected thence on the skin—extreme quickness of pulse—and, by the promptitude with which the muscular powers are re-established when blood is withdrawn. There are few physicians who do not begin the treatment of fever by antiphlogistics; but, as soon as they perceive debility, they have recourse to stimulants, the consequence of which is, the revival of the phlegmasia, ulceration of the mucous membrane, and a long protracted cure, if life be saved at all.

Savant. Can ulceration of the digestive canal in fever be cured then?

Phys. Yes. Nature effects a cure in a few weeks, if the disease is not exasperated by stimulants, provided the patient is not too much exhausted; for, when the patient at length sinks, there are found in the intestines numerous traces of cicatrized ulcers, which proves that, had the patient possessed force to resist for a longer period, life would have been preserved.

Savant. Therefore his strength should be supported to prevent his sinking.

Phys. I grant it. But it is with mucilaginous, gummy, and saccharine beverages, with a small proportion of milk, that this ought to be done. The weakest chicken-broth is sometimes sufficient to exasperate the inflammation, and its consequence, the fever. What, then, must be the effects of strong soups, wine, bark, and incendiary drugs?

Savant. But it is generally allowed that convalescence is very tardy after the treatment you advocate.

Phys. This we deny. It is only a malicious report of our enemies.

The above is the theory, and also the practice, of the new school. It is infinitely more simple and easy than even Brunonianism. Any student, of common talents, may learn it in a fortnight, and thus become a physician superior to all others, ancient or modern, those of the new school excepted. For proofs of the truth of this doctrine, and the success of the practice, M. Broussais refers you to the phenomena of fever at the bed-side—the *post-mortem* appearances on dissection—and the clinical experience of the VAL DE GRACE, or any other place where the treatment is put in force. But the course of the finest theory, like that of the truest love, “never did run smooth.” Those INTERMITTENT fevers which have proved a stumbling-block to our countryman, of cerebral celebrity, are rather difficult of digestion for him of the gastric doctrine. But what will not ingenuity conquer? We must recollect, say the disciples of Broussais, that the irritation which raises motion, sensation, and attracts the fluids to any part of the body, is not always such as to follow up its destructive work to the point of disorganization. When it has these last characters, it is called inflammation.

“But sometimes the irritation is moveable; so that after having acted a certain time on one membrane, it deserts it, to make its appearance in another, or else it returns constantly to the same point; after having left it in a state analogous to that of health or a primitive state. Well then, these changeable irritations going from one place to another, or affecting always the same place, differ but very little from fixed irritations; they are produced by the same cause, they yield to the same curative means, and, if they are exasperated by stimulants, they intermix or complicate entirely with them.

“P. These irritations, which I told you were susceptible of being transported from one texture to another, appear under different names in the authors that have treated on them. To give you an idea, I select the gout and rheumatism; you know that physicians consider them as

inflammations, notwithstanding their great mobility, because, during the stay these make in an articulation, there is observed in it redness, heat, and pain. Well, then ; this changeable irritation sometimes becomes fixed in one of the parts which it was in the habit of leaving, or in a new situation ; and from that time acts as if it had never been moveable. Moveable or fixed, the gouty irritation depends always on the same causes ; moveable or fixed, it ought to be combated by the same means. You thus see, that there exists a great analogy between fixed and moveable irritations." 174.

These considerations prepare us for the solution of the problem respecting intermittent fevers. Do we not see men who have annual attacks of gout, or erysipelas, and, in the intervals, they are well? Why then should we not admit a *tertian* as well as an *annual* inflammation? The plus or minus of interval makes no real difference. An intermittent fever then is a *tertian* or *quartan* irritation or inflammation of the mucous membrane, which is of the moveable or migratory kind. It leaves its place at a certain hour, every second or third day, and, instead of visiting any other part of the body, it prefers returning, at a certain hour, to its old habitation. What can be more simple, clear, and convincing, than this ingenious explanation? There is only one little difficulty remaining, and this will be easily got over. Cinchona has (though it *ought* not to do so) cured agues. That may be, says Broussais; but the exception is far better than the general rule. It is a positive fact that bark has changed an intermittent into a continued fever, which is proof sufficient that the cause was an irritation or inflammation in the stomach. As for the pretended cures by bark, it will be found that almost all the patients so cured are "cachectic, with large spleens, enormous livers, oppression, cough—or, otherwise, they are in a state of dropsy or scurvy." "Now, all these infirmities are the produce of chronic inflammations of the viscera, which the stimulant action of the cinchona has substituted for the periodical irritation at the commencement." Q. E. D. To such irresistible arguments as these it would be vain for us to attempt a reply. It is somewhat curious, however, that the two leaders on opposite sides of the channel, should never, even by accident, make the slightest mention of each other's names, or allusion to each other's doctrines. This is the more remarkable, as Dr. Clutterbuck published his first edition some thirteen years before Broussais—while, on the other hand, the works of Broussais were thirteen years before the public, when Dr. C. published his second edition. From all that can be gleaned from their writings, they do not appear to be aware of each others' existence, though not 400 miles apart! And yet

M. Broussais, in his "Examen," surveys, with a critical eye, the state of medical literature in Great Britain, up to the year 1821—not, indeed, entering into combat with the leading writers of these isles, from whom he might have collected the sense of the profession, on most points, both of theory and practice; but, making war principally—"on rats and mice, and such small deer," as he found collected together in the "BIBLIOTHÈQUE BRITANNIQUE" extracted from the lucubrations of a few minor and unknown contributors of *original cases* in the Medical Journals of this country!—The list of English authorities given by TOMMASINI, a few years ago, and so admirably exposed by our friend Clarke of the eternal city, was a paragon of pure medical history, compared with the catalogue of English worthies which has been distributed over the Continent, with comments, by brother Broussais—who, by the bye, cannot read one word of English! Dr. Bowes, Dr. Clyston, Dr. Bigsby, Dr. Newnham (they are all doctors here) Dr. Kinglake, Dr. Rogers, &c. have reason to complain of the ingratitude of their countrymen, in not awarding them a higher niche in the temple of fame at home;—but they have the consolation of knowing that they are the true representatives of the British profession wherever the works of Broussais have travelled on the Continent! True it is, they are held up to ridicule by this learned professor, who frisks round each of them as a cat would frisk round a mouse—and at length swallows them at a mouthful, when he is tired of laughing at them! But still, any thing is better than neglect.

Yet it may not be quite unprofitable to hear what a man of Broussais' reputation thinks and says of us, in his review of theories and practices of different ages and nations—none of whom, not even the French, he spares—so that we cannot complain of his partiality, whatever we may do of his severity.

The English, says he, affect to despise Brunonianism, and the greater number preserve strict silence respecting the works and discoveries of their Continental neighbours! Yet they secretly profit by all—though their practice is a strange medley—and consists principally of empiricism. They are inclined towards the humoral pathology; but almost all of them talk in a tone of inspiration, as if they had invented the science, without giving themselves any trouble to prove their assertions. Some of them say they can cure all diseases by purgation—but most of them join blood-letting and opium. These three means, with a few specifics, constitute almost the whole of their *methodus medendi*.

When they have acute diseases to treat, they seldom enquire

into their seat or nature. They draw their lancets first, and then pour in cathartics. Calomel is a great favourite with them. They give it in almost all diseases—even in *yellow fever*!! Some of the English join gamboge and colocynth with their calomel as a purgative. They have no patience to wait the efforts of Nature. Every visit is distinguished by a new prescription, containing the most potent drugs. Delirium, colic, convulsions—nothing stops their hands! Blood-letting, purgatives, opium, oil of turpentine; tinctures, aromatics, strong wines, all testify to the sick and to the assistants the prodigious and inexhaustible resources of the doctor! Like Brown, whom they imitate, they leave nothing to Nature who they consider incapable of any salutary effort.—Art must do all, in their system—and in truth, it is most efficacious; for this furious practice does not effect a crisis, it soon puts an end to the patient by disorganizations of the principal viscera, which the doctor beholds with astonishment after death, never dreaming that he occasioned them all himself—a sure proof of the profound ignorance in which the English are plunged, touching the mechanism, and the functions of the viscera, or the application of physiology to the treatment of their diseases!* It is thus that we can explain the practice of Dr. Newnham, who tortured with emetics and purgatives a patient affected with gastric irritation, till he produced a cancer, which he only discovered on dissection. “*Qui tourmente par des emetiques et des purgatifs une personne affecté d’irritation gastrique, et produit par cette perturbation, un cancer qu’il ne reconnaît qu’à l’ouverture du cadavre.*”

And yet, we would recommend to some of our Abernethian disciples an attentive perusal of the following passage—“*fas est et ab hoste doceri.*”

“It would be difficult to convey an idea of the extravagant passion for purgation which obtains in England, especially in chronic complaints. In this respect the faculty are in perfect accordance with the prejudices

* M. Broussais is not aware that we are obliged to draw all our finest specimens of morbid parts from the French, and even from himself, since the energetic depletive practice of the English, in active inflammations, leaves us quite destitute in that department, compared with our Continental brethren. We have, times out of number, proved the truth of this assertion, by faithful details of the nerveless practice and minute dissections of the most celebrated French physicians. It is certainly too much to be taunted with destroying the viscera of our patients by active depletion—for if we do run into excess sometimes in this way (which we do not deny) the effects would be any thing but those frightful disorganizations pointed out by our author.

of the public, who are naturally humoral pathologists, and who are never better pleased than when they have evacuated a large quantity of yellow, green, black, and especially of fetid stuff. By such a lustration they believe themselves delivered of a multitude of poisons which could not fail to corrupt the whole mass of humours. They treasure up in their memories this fortunate disgorgement, and, after a short time, imagining that the enemy must have again collected his forces, they hail with pleasure another dose of calomel and black draught from their dear doctor. The comfortable feelings and increase of appetite which they experience soon after the process of purgation, confirm them in the necessity of the measure, and the propriety of frequently repeating it. Why, indeed, should they not cherish a remedy which gives such sudden relief, and which procures for them, the very next day, the power of indulging in the luxuries of the table? The remedy is, therefore, had recourse to, twice or thrice a week;—and if, after a time, it is found that the appetite flags, then the dear doctor has in reserve bitters, tonics, and stimulants, which again create an artificial appetite—flatter their sensualities—but pave the way for a terrible retribution. For my own part, I think the English physicians should remember that they are, by this indulgence, fixing a permanent irritation in the digestive organs of their patients; and that they should resist the propensity to purgation, and consider what they are about.”—p. 254, vol. i. *Examen*.

Although M. Broussais' fears respecting the effects of purgation, particularly in fevers, are greatly exaggerated, in consequence of the peculiar ideas which he entertains as to their seat in the mucous membrane of the stomach and bowels, yet there is much truth in the general principle maintained in the above passage. We are thoroughly convinced that, in a great proportion of cases, the secretions from the bowels will be slimy, and many-coloured, and bilious, and watery, and fetid—and, in short, *disordered*, so long as we continue the use of drastic purgatives, especially in chronic diseases. It is impossible that the motions can become healthy—that is to say, natural—formed—solid, under purgation; and, therefore, the advocates of this practice, should rest from their labours occasionally, and let the bowels remain in peace for a few days to see the effect. We have, times out of number, been shewn the vile secretions which were daily passing off under calomel, scammony, and the black draught, and which were carefully ranged in half a dozen or more pot-de-chambres, every morning, each according to seniority, with the right of primogeniture most carefully guarded by the nurse. We have been asked, “can we dare to interrupt the process of purgation while things are in this condition?” We have, by much persuasion, procured an armistice of three days, at the end of which, to the astonishment of patient and practitioner, the nurse would bring to light—a

“mortal coil,” on which Mr. Abernethy might feast his optics and olfactories for an hour. But we have seen other terminations of the affair; we have known the most serious diseases to be produced in the rectum and lower part of the colon by this hyper-purgative system. We have known more than one or two instances of fatal exhaustion produced by “following up,” as it is called, the purgative plan, in convalescents who happened to shew some disordered secretions in consequence of improper, or too much, food. One dose of purgative medicine would, under such circumstances, be beneficial; but when it is *pursued* with the vain hope of seeing healthy motions come forward, most injurious consequences may result. In acute diseases, we well know the advantage of keeping up a brisk action in the whole line of the intestinal canal, by means of which, the whole vascular system is emptied or relieved; but this is a very different case from chronic and apyretic affections, in which hypercatharsis, daily repeated, may and does produce serious mischief. The great object in almost all chronic disorders is to procure *one* copious, fæculent, and soft, *not liquid* motion, daily. This is quite enough—and, at this rate, the process may be carried on a long time. But beware, in chronic diseases, how you *repeat* your colocynth at night, and black dose in the morning, for days or weeks! And now to return to our critical author.

The English have the most confused and contradictory notions respecting typhus and other fevers. They cannot determine as to the seat or nature of fever. Some bleed—others give bark and stimulants—but all are agreed in one measure—*daily purgation*. The editor of this journal next comes in for a slight chastisement. He had strongly commended the ingenious views which were broached, a few years ago, in a little work written by M. Vialle, a disciple of Broussais—and for this he is treated as—“un homme de mérite.”—p. 257. But, for employing calomel in fevers, he is condemned as a disciple of Brown or Rassori, and asserted to be *unacquainted with the writings of Broussais!* “Il résulte de ces réflexions que notre confrère d’Angleterre, bien qu’avec l’intention de se montrer impartial, a cédé à l’influence de la doctrine Empirico-Brownienne de son pays, et que cette influence l’a exposé, malgré ses bonnes intentions, aux reproches d’inconsequence et de légèreté.”—258. To this we make no reply; but, to the charge of not being acquainted with the writings of M. Broussais, we have only to say, that, before this accusation was made, we laid before the English profession minute and comprehensive analyses of all the works which M. Broussais had then published.

After this, we might very easily turn the last line of the above passage on the author, and, with justice, expose him, "aux reproches d'inconsequence et de légèreté." But we excuse M. Broussais, because he is unacquainted with our language or literature.

Dr. Brennan and others, our author observes, give oil of turpentine in puerperal fever. In a few instances, Nature is able to combat both the disease and the doctor, but in the majority of cases, this frightful stimulation (stimulation effroyable) augments prodigiously the inflammation, and causes death in the midst of the most horrible torments—or, if not sudden death, a slow disorganization with marasmus, which is worse.

It is true, the College of Physicians of London do not sanction this "therapœia perturbatrix;" but then they have substituted a medley of antiphlogistics and excitants—that is, an irrational treatment. The English still maintain the existence of idiopathic fevers—they know nothing of the real nature of diseases of tropical climates, in which they still bleed and purge, instead of applying leeches to the epigastrium, and keeping their patients on lemonade. I am not quite sure whether or not the English know that there is such a disease as chronic peritonitis; "but the London Medical Repository cites, as a very curious case, an adhesion between the several viscera of the abdomen, and does not give the disease a name."—267. Dr. Scudamore, however, has marked an æra in medicine, by his work on Gout—"un ouvrage, *ex professo*, qui vient de faire faire à la médecine un nouveau pas."—268. The reader may be curious to know why our learned countryman has met with so mighty an elevation all at once above the pigmies of this nation. It is this:—1st, His work is translated into French—hence Broussais was enabled to read an English book—secondly (and principally) because "the fundamental idea of this author is to attribute gout to the progressive development of an *irritation in the digestive organs*." If Dr. Eady or Dr. Lynch had broached such a doctrine in this country, they would have been placed over the heads of a Baillie, a Parry, or even a Hunter! They would have been represented as making "un nouveau pas à la médecine." And after all, it is only *in theory* that Dr. Scudamore has made the "nouveau pas"—he has left the *practice* just where he found it. "*La partie thérapeutique ne s'est point améliorée entre les mains de l'auteur Anglais*."—275.

The English, says M. Broussais, have profited so little by the lessons of their own Sydenham or Cullen that they attempt to cure *acute rheumatism* by mechanical compression, which

generally drives the irritation in upon the vital viscera !—Oh, Dr. Balfour ! what ridicule have your bandaging and your pummelling brought upon the country of Sydenham and Cullen !

The English have, however, extended the boundaries of medicine in some respects. They have *invented* several new diseases. Among these is “*delirium tremens*,” an erithism of the brain produced by irritation of the stomach. They pretend to cure it by opium and other stimulants, and the enemies of the new doctrine have cited this (false) fact against us ; but this is all stuff. The English did not cure *delirium tremens* by any such means—and if they did, they *ought not* to do it—for it is against all the rules of science.

The English often think they discover new diseases and phenomena, which are well known to their neighbours. Thus Dr. Philip has published a paper in the Medico-chirurgical Transactions, on a disease which he calls *dyspeptic phthisis*—a disease described by Hippocrates, and well known ever since the days of the father of medicine. And after all, Hippocrates and Philip, and the various intermediate authors are wrong ; for the disease does not begin in the *liver*, as they pretend ; but is seated in the mucous membrane of the stomach and bowels.

We shall not follow M. Broussais any farther in his long review of the state of medicine in England—in which there is much of misconception, rather than of misrepresentation, all owing to his ignorance of our language, and, consequently, imperfect acquaintance with our best authors. We, therefore, absolve him from all blame, except that of setting himself up as the critic of a whole nation, without any adequate knowledge of his subject.

In thus giving a very slight exposé of the opinions and practice of M. Broussais, we beg distinctly to acknowledge, that the *principia*, or, as he terms them, “propositions of medicine,” to the number of 468, occupying nearly 150 pages of his work, contain a vast fund of sound and enlightened views, which are well deserving of attentive meditation. They highly merit a translation ; and it is our intention to dedicate an article to the pathological and therapeutical divisions, in the next, or an early number of this journal.

II.

Transactions of the Medical and Physical Society of Calcutta.
Vol. the first. 8vo. pp. 410. Calcutta, 1825.

WE have often deplored the situation of our medical brethren in the vast regions of the East, cut off, as they are, from that speedy intellectual intercourse which forms one of the chief enjoyments of professional men in Europe and America—and counterbalances much of the anxiety, and toil, and crosses, which every medical man is destined to experience, more or less, in the discharge of his arduous duties. The great majority of the profession in India are scattered far apart, over a vast extent of country. They hear and see nothing of the stir of science, and catch but indistinct and partial glimpses of the advancement of knowledge.

“ Their limited means and frequent removals, put it out of their power to provide themselves with regular and expensive supplies of books, and there are no public libraries beyond the limits of the Presidencies : they can derive, therefore, little benefit from the recorded experience of others, and they have rarely any opportunity of confirming or correcting their own, by that of an associate, a rival, or a friend :—their scene of action is too restricted, and too entirely their own, to admit of emulation or ambition ; and the official reports, in which alone their practice is commemorated, are too much matters of form and routine, to merit or attract animadversion. So situated, it is not wonderful that their zeal dies within them : no man is independent of external stimulus, and the surest method of annihilating energy, is to leave it to prey upon itself.” vi.

We trust that we have, in some degree, with our cotemporaries, contributed to lessen these evils, by putting it in the power of every individual of the profession in the East, as well as in the West, to see a concentrated exposé of all that is going on in the medical world, at a very small expense, and in a form which the soldier in the field might carry without inconvenience. Nevertheless, there was something more than the journals of Europe wanted. A medical society was desirable, and was accordingly formed at Calcutta, under favourable auspices, enrolling a great number of names, and including men of rank, talent, and science in all of the three Presidencies. The main object of this society was to give a concentric impulse to the detached members of the service, and to afford them augmented facility of information, as well as a new excitement to emulative exertion. They were invited to contri-

bute without restraint, the results of their enquiries and observations, while, on the other hand, the proceedings of the meetings at the Presidency were regularly communicated to the non-resident members. The result of the appeal fully justified expectation, and proved that means only were wanting to animate the energies of the service. Publication was only a possible contingency, at first; but various contributions on professional subjects rapidly accumulated, and soon put the matter out of doubt. The volume before us is the first fruit of the society, and, all things considered, does credit to the new association, and gives promise of still better things in future.

This volume consists of thirty-three original articles, and an appendix of minor matters, consisting of intelligence, extracts of letters, regulations of the society, &c. It cannot be expected that all these articles should be equally interesting to the European reader. Some of them are of much more local than general importance, as may be readily supposed from the nature of the circumstances under which the work is published. This feature, however, will rather augment than decrease its value in the East, where, of course, the principal scene of its circulation and success must lie.

I. The first article is a very erudite one on the Kushta, or leprosy, as known to the Hindoos, from the pen of H. H. Wilson, Esq. It will be read with much interest by our Oriental brethren, and to them we must consign it.

II. The second article is by Dr. N. Wallick, giving a description of the tree which produces the Nepal camphor wood, and sassafras bark. This tree was discovered by our author on his journey to Nepal, and a drawing of it, which he designates by the name of *Laurus Glandulifera*, is given.

III. *Fatal bite of a Venomous Snake.* By P. BRETON, Esq.—On the 27th March, 1818, a Syce was bit in the leg by a snake, called by the natives *siah chanda*. A piece of string had been immediately tied very tight above the part, and the absorption of the virus seemed to have been retarded. Half an hour after the accident, the Syce presented himself to Mr. Breton, and evinced no symptoms of disorder. Two punctured wounds, an inch apart, were seen near the ankle, from which a few drops of blood had issued. No discoloration or swelling had taken place, nor any sense of pain in the part. Mr. B. however, applied the caustic volatile alkali, and ordered

some of it to be administered internally. In a few minutes after this, the Syce became sick, began to vomit, and complained of faintness and indescribable sensations of uneasiness. Fifteen drops more of the volatile alkali were immediately given, and the dose was quickly followed by vomiting. There was now a considerable diminution of the force of the circulation. Vomiting again recurred, after which there was a suspension of the circulation, loss of sense, and convulsions. Some more of the volatile alkali seemed to rouse the circulation and check the convulsion; but the pulse soon fell again—the body became cold—respiration suspended—and the vital powers appeared, for a few seconds, extinct. 20 drops of the volatile alkali were forced down the throat, when a convulsive effort was made to breathe, and a tremulous motion of the heart and arteries followed. As the circulation returned, so did the senses—the faintness, dimness of sight, and sickness continued. Some more volatile alkali being given, the man seemed gradually to recover from the effects of the poison, and remained tolerably well during the night. In the morning the leg and thigh were found much swelled—he was perfectly sensible, but complained of pain in the limb, dimness of sight, faintness, and restlessness. The affected limb was quite cold and tense to the feel—the pulse imperceptible—the tongue colourless. Some more volatile alkali was administered, and repeated every ten minutes. About ten o'clock a slight convulsion occurred, and soon put an end to his existence.

Remarks. As the effects of the poison did not manifest themselves till an hour after the bite, it is more than probable that, had cupping-glasses been employed, in the manner recommended by Dr. Barry, this man's life might have been saved. We strongly recommend our brethren to take every opportunity of putting in force the ingenious and easy method of prevention so successfully experimented on by Dr. Barry.

IV. Wound of the Stomach. Mr. Breton communicates this case also. The patient was a trooper in the irregular cavalry, who, in a fit of despondency, charged his holster pistol with three balls and attempted to destroy himself. His native woman, however, flew to him and endeavoured to wrest the pistol from his hand, and for this generous action forfeited her own life, for the pistol went off in the struggle, and the contents went through the woman's body, who died on the spot! The trooper immediately re-loaded, and shot himself in the pit of the stomach, the ball lodging in the left side of the lumbar

vertebræ. He had no more ball cartridge left, and, although he fell, from the first shock, yet he was able to walk to the fort soon afterwards, where he related the whole tragedy.

“ On examining his wound, I found that the ball had entered the epigastric region, and was perceptible to the feel in the left side of the loins. I immediately extracted it, and closed the incision with adhesive plaster. Conceiving that the stomach was penetrated by the ball, I considered the case a hopeless one, and reported the wound to be mortal. The following morning, the man had recovered his senses, so as to give a distinct and rational account of all the circumstances which led to the commission of the rash act ; and the wound manifested such appearances, as left no doubt in my mind of the stomach being perforated.

“ My attention was therefore directed to uniting the anterior wound with all possible speed, and to prevent the introduction into the stomach of any more food than was absolutely necessary to support life. To my astonishment, the wound quickly united, and the serous discharge from the stomach gradually ceased. When union had taken place in the anterior wound, I was informed by the native doctor, that when food was taken into the stomach, particles now and then escaped from the wound in the loins, where the ball lodged. To convince myself of the truth of this assertion, I gave the trooper a draught of water to drink ; and almost immediately afterwards, I distinctly saw a small quantity of it trickle through the wound. I repeated this two or three times, and was satisfied that there was a communication between the stomach and the wound in the loins. Superficial dressings were continued, and rigid abstinence enjoined. In the course of about a month and a half, the wounds healed, and the man recovered, and was afterwards tried by a General Court Martial for the crime of murder.” 61.

Mr. Breton refers to Mr. King, surgeon of the 4th Native Regiment for corroboration of the foregoing particulars. We are sorry Mr. B. did not give a more circumstantial account of the appearances manifested by the wound on the morning after the accident, and which, he says, left no doubt in his mind respecting the perforation of the stomach.

V. Oil in the Blood. This is an unusual phenomenon, but there are several instances on record. Dr. Adam relates the case of a Sergeant M'Donald, who went to bed in good health, though somewhat intoxicated, and was found dead in the morning. As suspicions were entertained of some foul means being used, the body was carefully examined. There were no marks of violence internal or external ; but the vessels of the brain were found rather distended ; both there and in other parts of the body, there was distinctly seen a quantity of oil floating in the blood.

VI. *Delirium Tremens*. Mr. G. Playfair has seen a considerable number of cases of this curious disease ; and, therefore, has furnished the Society with a paper on the subject. It happened only among those men addicted to habitual excess in the use of spirituous liquors. In some instances it assumed the form of outrageous mania, and if neglected or improperly treated, the worst consequences were to be apprehended.

“ The subjects above alluded to are sent into hospital from the immediate effects of the debauch, viz. extreme irritability, tremors, sensation of debility, flushed countenance, eyes heavy, severe head-ache, (though this is not an invariable symptom,) pains and spasms in the stomach and bowels, constipation, incessant vomiting, and frequent violent spasms all over the body and extremities. To remove this state of the system, the usual means resorted to are—

“ 1st. To allay the inordinate action of the diaphragm and abdominal muscles, and general irritability of the nervous system, by the exhibition of saline draughts in a state of effervescence, camphorated mixture, laudanum, ether, blood-letting, general and local, blisters, sinapisms, &c.

“ 2nd. A full dose of calomel, viz. gr. xx. with or without laudanum, as a sedative, and preparatory to,

“ 3rd. Strong purgatives and enemata, repeated as may be found necessary.

“ This treatment is generally successful in removing the effects of the debauch, in the course of one or two days, after which, recovery to health and strength is usually rapidly progressive ; but it sometimes happens, that, from the time of the admission of the patient, there prevails a great degree of restlessness, and want of sleep, which are always to be looked upon with suspicion, as the forerunners of something more serious ; and the cure is never to be considered complete, till the patient shall have had some hours sound repose : for this purpose anodyne draughts are liberally exhibited, the instant the bowels are freely evacuated.” 126.

In some instances, however, the restlessness continues, with a particular wildness in the eye, and a dislike or want of power to remain quiet. These symptoms gradually increase—he cannot lie down—or, if he does, he starts up as if likely to be suffocated. He talks in a strange manner, yet with the appearance of being perfectly in his senses—complains of the other patients making faces at him, and entering into conspiracies against him, &c. &c. This is accompanied, of course, by want of sleep. It now becomes necessary to separate the patient from others, to prevent mischief—and restraint itself is soon indispensable. Our author’s experience does not coincide with those who believe that the disease only takes place in advanced life—on the contrary, he has found it almost invariably affect

the young, the religious, the robust, the plethoric, and especially those who have been suddenly debilitated by previous illness. The mode of treatment in this case is to procure sleep, as this has always relieved the complaint. With this view, a full anodyne draught was exhibited at bed-time, and sometimes repeated at midnight, if not efficient by that time. When symptoms of mental derangement took place, he commenced with, perhaps, 100 drops of tincture of hyoscyamus, and 30 of laudanum, repeating 20 of the former, and 10 of the latter, every two hours, as regularly as possible till sleep was procured. He has succeeded in twelve hours, but it has required 24, and even 36 hours before irritation could be allayed, or sleep procured. He has been obliged to suspend the use of opium, till the bowels were well evacuated, but he generally continued the use of henbane. On several occasions he has been obliged to have recourse to the lancet, alarmed by the fulness of the pulse, inflamed appearance of the eyes, and obstinate constipation of the bowels. After the bleeding, opiates had a better effect. Tremors were not always present—the patient seldom complained of head-ache—the pulse was generally regular, and rather full—yet he has seen it feeble, and nearly imperceptible, the body being cold, and the sweat clammy. In these cases he has resorted to wine and other stimulants. Patients of this kind are almost always bathed in sweat—the tongue usually clean and moist, with great thirst. No case, in our author's practice, proved fatal; and in this, we think, he was very fortunate, for it is a dangerous disease.

VII. *Calculus Adherent.* Mr. Corbyn relates this case. A man complained of most agonising pain, from obstruction in the urethra, impeding the discharge of urine, which passed guttatim. The urine was peculiarly offensive, and impregnated with calcareous and viscous matter. There was tension and pain over and above the symphysis pubis. The pulse was low and tremulous—the bowels obstructed—countenance haggard. He was also under sentence of punishment, which added greatly to his sufferings. On passing a sound into the urethra, one or two small abscesses were ruptured, and some matter escaped. Mr. C. could then distinctly perceive a large stone in the bladder. Light diet, laxatives, and laudanum. The symptoms became daily more urgent and dangerous, and dissolution was threatened, unless lithotomy was performed. An hour was appointed, but such bad symptoms came on that the operation was obliged to be deferred, and the patient soon died. On dissection, the urethra was observed to be much diseased, and

the stone was found so adherent to the coats of the bladder, that it could not be disentangled without tearing the organ. The bladder was, in fact, a mass of disease. Nothing but the high operation could have been of any service here.

VIII. *Pedicular Eruptive Disease*. About a month previous to December 6, 1823, Mr. Sinclair was called to a gentleman in the province of Candeish, labouring under those symptoms which generally usher in fever, attended by much depression of spirits. This state continued until the evening of the third day, when the pain in the head became more severe, and the face unusually flushed. Bleeding was resolved on, which instantly relieved all the symptoms. In less than half an hour he complained of great itching all over him—about midnight this feeling had become intolerable, and at eight o'clock the next morning, on examining his skin, he discovered an eruption resembling the prickly heat, but more in clusters, and the pimples of larger size, and open at the top.

“ Around these were numbers of a small insect: they were to be seen within others, and in the few that had not been opened, the bags of ova were easily extracted with the point of a needle, and were of sufficient size to be distinctly observable by the naked eye. The parts particularly affected were the back, and back part of the neck. I ordered the patient to be slightly rubbed with the Ungt. Hyd. Mit. which in the course of that day relieved him completely, and destroyed the insect.” 150.

IX. *Dracunculus*. Mr. Bird has made some observations on this curious disease, and thinks if they are corroborated by future observers, we shall have arrived at a nearer acquaintance with its nature.

“ They will at once corroborate the opinion, that it originates in something peculiar to the soil or water of the place, and that this peculiarity is, their containing some animal whose ovum, when deposited in the human body, is capable of producing a creature sui generis.” 154.

Mr. Bird does not think, however, that dracunculi are produced from the ova of an insect “ something after the manner of the chigre of the West Indies.”

“ The great objection to this opinion seems to be, that the length of the dracunculus is out of all proportion to the size of the larva of any known insect, and that its structure more closely resembles the vermes than any other class known to naturalists.” 155.

Leaving speculation aside, we shall give the following therapeutical extract from our author.

“ When the body of the *Dracunculus* is of sufficient firmness to allow of its being pulled, the common method of rolling the animal on a quilled piece of adhesive plaster, and thus extracting it by degrees, will be found sufficiently successful to justify its being generally adopted, in opposition to the plan recommended by M. Larrey, of snipping off the end of the worm close to the opening in the skin, and then promoting suppuration by fomentation and poultices. It is, however, frequently rendered abortive by the ill-timed attempts, which patients sometimes make to extract the worm. When the surrounding parts are tense and inflamed, any effort made to draw the *Dracunculus* from its bed generally breaks it; and tedious suppurations follow in consequence. Under such circumstances, I have always waited until pus was formed round the body of the animal, and a serous ulcer had been in this manner established. Fomentations of warm water, and friction with oil, have been the only means I have ever employed to obtain this result. Leeches are often objectionable, as the inflammation is of the anasarca kind, and they are apt to produce an increase of the swelling, and troublesome ulcerations. When they are deemed advisable, they should be applied, I think, in the neighbourhood of the swelled parts. A piece of simple dressing over the opening in the skin is preferable to a poultice; for under the use of the latter, I have always seen the *Dracunculus* drop off. In two cases, where the constitution was very irritable, I mercurialized the system, and the effect it had in subduing the inflammation was very remarkable. This practice appeared to kill the worms, which were discharged in bits, along with the pus of the parts. When the body of the *Dracunculus* is so fine as not to allow its being extracted in the common way, and the inflammation of the parts runs high, mercurializing the system may be adopted, I think, with advantage. When there is swelling, with hardness of the soft parts, without any considerable redness of the skin, friction with mercurial liniment has considerable power in relieving tension, and promoting suppuration.” 63.

X. Aneurism of the Aorta. By Dr. Adam.—The subject of this curious case was a seaman, aged 32 years, from one of the Company's ships in the river, admitted into hospital on the 9th October, 1822, complaining of severe pain in the right shoulder extending down the inside of the arm to the extremities of the fingers. It was most acute and permanent immediately under the spine of the scapula, reaching outwards to the acromion. Voice feeble, and feels occasional difficulty of breathing. At the lower part of the neck, on the right side, and directly over the clavicle, there is an irregular swelling, the size of a goose's egg, rather firm, reddish, and pulsating. In the brachial and radial arteries of the wrist there is scarcely any pulse. In the opposite side it is full, and 92 in the minute. The carotids beat violently—he is attacked with occasional head-ache, principally in the back part—the heart appears to labour, but no

sense of throbbing in the chest. Complains of pain under the false ribs of the right side. Dates the complaint about five months previously, when leaving England, after taking cold, and being affected with much difficulty of breathing.

“ From the above symptoms, the nature of the case seemed quite evident; and it was resolved that the patient should be very freely bled, and put upon the strictest antiphlogistic regimen in the first instance. Forty ounces of blood were accordingly drawn from the arm at two bleedings, and he was purged by means of sulphate of magnesia daily administered. On the 12th, there was not as formerly any pain in the tumour itself; but it was equally severe in the shoulder and down the arm, and the whole limb was in a state of numbness, or, as he expressed it, felt, “ like a lump of lead.” Sleep very much disturbed. On the 13th, he had enjoyed some repose during the night, and the tumour was not only sensibly diminished, but there also appeared some degree of improvement in his voice; the pain continuing much the same. Anodyne liniments were gently rubbed in over the shoulder and arm, (consisting of camphorated tincture of soap and laudanum,) and opiates, with Datura extract, (one third grain every second hour,) were exhibited internally, and the bowels kept open by means of castor oil. On the 16th, he was again bled to twenty ounces. On the 20th, he complained of severe pain in the belly, and V. S. was again ordered, which he would not submit to. On the 22d, a solution of tartar emetic was prescribed, so as to produce nausea; but vomiting being excited, this remedy was intermitted. On the 26th, Ipecacuanha was administered in the dose of three grains every second hour, and he was bled to oz. xv, which he readily submitted to. The Ipecacuanha was persisted in, so as to keep up a constant nausea, and lower the force of the circulation; and on the 1st Nov. the pulsation in the tumour appeared sensibly weaker. Two days after, a pain attacking him in the back of the head, leeches were applied to the temples (xx,) and he was freely purged at the same time. The pain of the neck continuing, the leeches were repeated, and the Ipecacuanha was still administered with an intermission of a day or two. On the 12th, having complained of pain in the chest, he was again bled to oz. xvi, and the anodyne liniment repeated, which afforded some relief. A considerable elevation of the back was noticed for the first time on the 15th. It was situated to the right of the spine, between that and the scapula, and appeared to depend on some internal organic disease. On the 18th, the pain both in the neck and chest was very severe, and he remarked, that he could *not lie at all on his right side*. Anodyne remedies were then had recourse to, principally Hyoscyamus, administered in the form of extract. From the 23d to the 26th, he complained of feverish symptoms, and the tumour was painful again, accompanied with difficult respiration, cough, and occasional fits of sneezing. By the 29th, the tumour was evidently increased, and his face was swollen, with an aspect of anxiety which it had never exhibited before; and he dreaded suffocation at times. On

the 1st December, he was, however, better; and continued improving from that date to the 27th of the same month." 231.

Venesection was resorted to several times afterwards, and ipecacuan was given so as to keep up a tendency to nausea. The most rigid abstinence was, of course, enjoined. The good effects of this treatment were very obvious. By the 8th of December, the tumour had nearly disappeared, and the pulsation was also diminished, while the pulse at the wrist became more developed. This state of improvement continued, with very little alteration till the 6th June, when he was attacked with pains on the opposite side of the shoulder and neck. In the latter end of July, his bowels became affected, and he was twice bled to twenty ounces each time. An obstruction appeared to exist in the intestinal canal, and it required various and copious cathartics to remove this obstruction; but it was at length done. He still complained of pain in the lower part of the right side, in the situation of the colon. He also stated that, some years before, he had been cut for a rupture. 9th August. A swelling made its appearance over the sternal extremity of the clavicle, the surface slightly reddened, and exceedingly painful on pressure; yet the next morning the swelling was entirely gone off, and he made no complaint, except of his bowels. On the 20th August, however, he expired.

"Dissection. The Aneurismal Tumor, although obviously not the immediate cause of death, attracted our attention in the first instance. Externally it was scarcely visible, excepting at the sternal extremity of the clavicle, which appeared in some degree elevated. On dissecting off the integuments, this bone was found unconnected with the sternum—bare at the extremity—and at some points of its surface rough from the effects of incipient absorption. Having removed the clavicle entirely, the tumor itself came into view, in the shape here of a small nipple-like process, rugous on the surface, and of a dark venous blood, or mulberry color. It appeared to be the coagulated blood much compressed, and shrinking into a smaller compass than it formerly occupied. The ribs being raised, and sawn off, the whole extent of the Aneurism was displayed, proceeding from the *Arteria Innominata*, and filling the upper part of the thorax, but altogether not exceeding in size the fist half closed. The jugular vein and the nerves were seen stretched over the surface of the swelling, and the carotid and subclavian arteries were traced to their origin, but found there quite impervious. The carotid had its orifice plugged up by a firm fleshy substance, while the subclavian seemed united by a ligamentous structure. The blood in the centre of the tumor was coagulated, like currant jelly; but from this to the circumference it gradually acquired more firmness; and the concentric layers into which it was disposed resembled in color and texture shavings of thick tanned leather, when moistened. The cyst of the

aneurism was thin towards the upper part of the tumor, and became thicker towards the artery. That of the nipple-like projecting process was also thin, but shewed no disposition to rupture.

“ About an inch lower down, another aneurism was found, projecting from the right side of the *Aorta Ascendens*, in a very regular globose form. It seemed to be of comparatively recent formation, as the blood in it was merely coagulated, without having assumed any of the firm laminated structure described above. It did not exceed the size of a walnut, and communicated with the canal of the vessel by an orifice, which admitted the point of the finger, quite smooth at the edges; and the vessel itself was smoother here, and apparently more sound than at any other part of its internal surface. In general this was rough and unequal, arising from disease in the *muscular coat*, which could be most distinctly felt, when the vessel was grasped between the finger and thumb. The coats, upon the whole, however, seemed thinner than natural, and the calibre of the vessel was enlarged all the way from the heart; which circumstance produced a want of elasticity, and occasioned its lying more flat and flabby-like than we observe in the sound condition of these parts.” 237.

An abscess was also found in the liver, containing a quantity of curdy pus. The substance felt soft to the touch, and had obviously undergone suppuration. The whole left lobe had been converted into either pus or serum—nothing remained but a thin cyst-like wall to the viscus. The stomach and spleen were healthy.

We have thus drawn the attention of our brethren to a proportion of the contents of this oriental stranger, and recommend it to the protection of its occidental brethren.

III.

An Essay on Egyptian Mummies; with Observations on the Art of Embalming among the Ancient Egyptians. By A. B. GRANVILLE, M.D. F.R.S. &c. &c. &c.

[Philosophical Transactions, 1825.]

DID the first idea of *Mummication* (we have not coined this word) or the art of preserving the frail memorials of a former existence, spring from vanity, self-love, or friendship? Or was it founded, as we are told, in “religious principles—the desire of preserving the mortal remains of the meritorious—the noble ambition of transmitting down to posterity the fabric of man himself in conjunction with the monuments of his own genius

—or a tribute to filial, parental, or conjugal affection?''* Whatever were the causes (and doubtless there were many) they appear to have operated in all ages and in all countries. In the old as well as in the new world—in the various islands scattered between both, we find *Mummies*, preserved with greater or less skill—and we have not to go beyond Westminster Abbey or Windsor, to find Mummies of yesterday, as well as of centuries gone. And what use can this preservation answer—what principle can it fulfil? Were the practice universal, this earth would become one vast catacomb—or covered with “cities of the dead.” We consider the practice of embalming as an act most contrary to nature, to religion, and to reason. Contrary to NATURE, because her laws universally act against, and ultimately frustrate every attempt to preserve from decomposition the material tenements of life:—contrary to RELIGION, which wisely consigns “dust to dust:”†—contrary to REASON, which clearly dictates that the putrefying exuviae of man and all living creatures should be resolved into their constituent elements, and mingled with earth, water, or air, as soon as possible after the departure of the vital spark. Upon what plea can the Christian wish to preserve this earthly tabernacle, after he has shuffled off the mortal coil? Not from the hope of a resurrection. The omnipotent fiat which shall clothe once more with flesh the wandering spirit, will need little aid from cerecloth, natron, or frankincense! But man still clings to the material emblems of life; and however unphilosophic, the *feeling* must be allowed to be natural and amiable, which cherishes the remains of those whom we loved or revered in this sublunary scene. Hence we find means taken in all countries and ages to arrest the destructive tooth of time

* De Lens on Mummies.

† It is difficult to say whether the idea of preserving the material fabric of man be in favour of or against the belief in the soul's immortality. It is said the Egyptians thought that the soul departed from the body, at the time of death, and continued in a separate state of existence for the space of 3000 years, when it again took possession of its original tenement, provided that tenement was preserved—otherwise it was obliged to pass into the body of some animal. This idea presupposes the soul's immortality, and would explain the great attention paid to the act of embalming, and the doctrine bears some remote analogy to the Christian doctrine of the resurrection. On the other hand, a belief in the soul's immortality and existence in another state, gives but little encouragement to the preservation of the clay which it once animated. There is no proof indeed of this doctrine among the Egyptians, and therefore embalming was probably founded on some mysterious dogma of their superstition, unconnected with belief in a future state of existence.

on the lifeless fabric of man.* No people on earth have been so successful in this contest as the Egyptians. Their pyramids and their mummies have outlived all record, and almost all conjecture of their own age or origin—and hence the curiosity of mankind respecting these monuments of antiquity has been, and still is, boundless. This curiosity (we now confine ourselves to the subject immediately under review) is not irrational or idle, inasmuch as we have in these mummies the skeletons of people who lived three thousand years before our own time—and consequently we have the opportunity of comparing them with races of men now in existence. This comparison it is true, has led to little importance of result. Another object of curiosity is, the method by which the Egyptians preserved their dead. Dr. Granville conceives that he has imitated the process. But the space of four years is a small speck on the stream of time, compared with three thousand.†

The Egyptian practice of embalming is alluded to in scripture—indeed, Joseph caused his father to be embalmed, and he describes the process as lasting forty days. Various accounts of the mummies have been published, and various specimens examined at different times and in different countries; but it has been subsequent to the French and English expeditions to that interesting land of antiquities, that the immense catacombs and “cities of the dead” have been thoroughly explored. Messrs. Bouyer, Jomard, and Larrey have published most interesting memoirs on the subject, in the great work on Egypt not yet finished in Paris. Baron Larrey, in particular, has made many important remarks on the *races* of the people now presented to us as mummies. From an examination of the crania, the Baron appears to have proved, what historians had conjectured, that the Egyptians have really descended from the people of Abyssinia and Ethiopia. The Copts are allowed by all to be descended from these last people, and their skulls correspond precisely with those of the ancient mummies.

Those who are desirous of perusing a very minute account of the various appearances, as well as the ways in which mum-

* The modern practice of covering our walls with the portraits of our forefathers and friends is a decided improvement on the mummy furniture of the Egyptians and Peruvians. In contemplating the *former*, there is a mixture of pleasure with melancholy, resulting from the *presence* of our friend or parent's image—while the sight of the shrivelled corpse inspires us only with horror of death.

† A great deal of information is obtainable from Mummies respecting the manners, customs, arts, and manufactures of the countries where the mummies are preserved.

mies are preserved, may consult the Memoirs above alluded to, or a very copious account of these Memoirs in the 11th and 34th volumes of the *Dict. des Sciences Medicales*, under the heads "*Embaumement*," by Pelletan, junior, and *MOMIE*, by De Lens.

We shall now proceed to notice some of the particulars observed by Dr. Granville, in his dissection of the mummy which came into his possession, and which we had an opportunity of seeing, while the doctor was examining its interior. It appears that few of the mummies, hitherto examined in this country, have been good specimens—many of them, indeed, have been complete impostors—as was the case in two instances, where Blumenback found, in one, only a bundle of bandages—and, in the other, was the mummy of an Ibis! It is curious that even the French travellers and literati before alluded to, should have met with few, if any, mummies having any of the viscera preserved—at least, they make very little mention of such appearances. They all represent the cavities of the cranium, thorax and abdomen, as filled with bituminous substances, and seem to think that the viscera were either extracted or destroyed by the injection of corroding substances.

On opening the abdomen, "the objects which then presented themselves were a portion of the stomach adhering to the diaphragm, the spleen much reduced in size and flattened, attached to the super-renal capsule of the left kidney, and the left kidney itself, imbedded in, but not adhering to, the latter, and retaining its ureter, which descended into the bladder. This, as well as the uterus and its appendages, were observed *in situ*, exhibiting strong marks of having been in a diseased state for some time previously to the death of the individual. Fragments only of the intestinal tube could be found, some of them of considerable dimensions, and among them part of the cæcum, with its vermiform appendix, and portions of the ileum. Several large pieces of the peritoneal membrane were likewise observed." 28.

There were also found several masses of a brittle resin, and some pieces of myrrh, which seemed to have been forced up to fill the cavity of the abdomen, after the removal of the larger portions of intestine and their contents through the anus—for in this mummy there was no lateral incision. No traces of the right kidney or of the liver could be found. Among the debris of the abdominal viscera, the late Dr. Baillie detected the gall-bladder slightly lacerated, but in other respects perfect, with some parts of its ducts attached. In the thorax the heart was found *in situ*, suspended by its own blood-vessels, and attached to the lungs, which were in a state of considerable preservation. In the cranium, no part of the brain, nor of its investing

membranes, was to be seen. The *former* must have been extracted through the nostrils, as the œthmoid bone was perforated—the membranes were probably destroyed by some hot or corroding substance injected through the same opening. The eyes had not been disturbed—the *tongue* of this Egyptian dame was still in excellent preservation, as were the teeth. Dr. Granville conjectures the age of this female to have been about 50 or 55, and that she died of ovarian dropsy—hence this is probably the oldest pathological preparation in the cabinets of the curious.

Dr. Granville has made a great many curious observations and experiments on the substances employed in embalming this mummy, and on the mode in which they were used. These we find it difficult to abridge, and have not room for the whole. He has also imitated the process which he supposes to have been employed by the Egyptians, and with complete success, as far as a few years may be considered a trial.* The main steps of this process are supposed to be these. *First*, The evisceration (in the great majority of cases) of the different cavities.—*Secondly*, Covering the body with quicklime for a few hours, and then rubbing off the cuticle with some blunt instrument.—*Thirdly*, Immersion of the body in a vessel containing a liquefied mixture of wax and resin, with, perhaps, some unessential bituminous substance, in which the *patient* was boiled for a certain number of days, so that the liquefied mixture might penetrate the minutest structure of the body.—*Fourthly*, The tanning process, by means of some vegetable astringent and saline substance, the precise nature of which cannot now be discovered—and *lastly*, The bandaging, in which act the Egyptians must have been exceedingly expert—much more so, indeed, than our best modern surgeons.

Such were the means, or supposed means, which vain and superstitious man put in force to prolong the material existence of this inanimate envelope, after having exhausted every resource of art to ward off the stroke of inexorable DEATH ! “ *Qui*

* “ There were exhibited after the meeting four different specimens of imitative mummies, each of them illustrative of one or two of the successive stages of the process of embalming detailed in this Essay ; the last being intended to illustrate all the stages together, and exhibiting a close resemblance to the Egyptian mummy itself. A still-born child had been employed for the purpose, and this modern mummy has now been in existence upwards of three years, without bandage or covering of any kind, exposed to all sorts of temperature and rough usage without betraying the slightest vestige of decay or putrefaction. It is rather darker than the Egyptian mummy from the circumstance of a too concentrated solution of tannin having been employed in preparing it.” 47.

mortem evitare non possunt, corporis saltem gaudeant duratione." By these means ancient Memphis, peopled the plains of Saggarrah, with human monuments of antiquity more durable than the marble or the granite of its mouldering and now entombed ruins.—By these means the hundred-gated Thebes vomited through her lofty portals those myriads of her children who were to crowd the "cities of the dead," in the heart of the neighbouring mountains, for 90 generations. There they awaited, during this long and dreary period, the advent of the wandering spirit, promised or predicted by priest or prophet, that was once more to animate their shrivelled frames, and lead them forth to behold the cheerful light of heaven. It did come—but it was the *spirit of curiosity*, in human shape, from the four corners of the earth. These sanctuaries were at length profaned.—The mighty lords and lovely women of Egypt—gods and men—apis and osiris—the ibis and the ichneumen—were all unhoused and doomed to the same indignities! The body of Sesostri himself was probably sold on the banks of the Nile for a couple of dollars. His queen or his daughter may have been the identical mummy, whose heart was torn from her breast by the rude hand of Dr. Granville!* A queen or a princess of Egypt may thus have been unswathed and exposed naked to the eye of the antiquarian, and her bones and bowels *exhibited* at Somerset House! To crown all, some blighted abortion of Brownlow-street, has been salted, tanned, and smoaked to rival the wife and the daughter of a Sesostri, a Psamureticus, or a Ptolemy! This picture of the vanity of all human hopes and wishes—as well as the instability of all sublunary things, conveys a moral lesson as valuable as it is obvious. The impression which it is calculated to leave on the mind we will not run the risk of weakening by further reflexions.

* "When I beheld before me the heart of an Egyptian female whom imagination, aided by historical records, may fancy to have been cotemporary with the great Sesostri, I could not help feeling a degree of enthusiasm, a portion of which, me thought, I could impart to others."—*Granville, p. 49.*

IV.

1. *A Treatise on the Medicinal Leech, including its Medical and Natural History, with a Description of its Anatomical Structure : also, Remarks upon the Diseases, Preservation, and Management of Leeches.* By JAMES RAWLINSON JOHNSON, M.D. F.L.S. &c. Illustrated with two Engravings. Octavo, pp. 147, London, 1816.
2. *Further Observations on the Medicinal Leech ; including a Reprint, from the Philosophical Transactions, of two Memoirs, comprising Observations on the Hirudo Vulgaris, or common Rivulet Leech ; and on the H. Stagnalis and H. Complanata, now constituting the Genus Glossopora, with Illustrative Drawings.* By JAMES RAWLINSON JOHNSON, M.D. F.R.S. F.L.S. &c. 8vo. pp. 112, with a Plate. London, December, 1825.
3. *Article SANGSUE.* Par M. MÉRAT. Dict. des Sciences Medicales. Tom. 49. page 520 et seq.
4. *A Treatise on the Utility of Sanguisuction, or Leech-Bleeding, in the Treatment of a Great Variety of Diseases, &c. &c.* By REES PRICE, M.D. Surgeon, &c. 8vo. pp. 152. London, 1822.

THE animal kingdom has furnished us with few medicinal agents of any great importance—the leech and the lytta excepted. Of these two, the former most unquestionably claims precedence, though certainly they are both of the highest utility in therapeutics. The leech is every day rising in importance, as the instrument of local depletion, and must always be considered superior to cupping, on account of its facility of application to parts where cupping-glasses could not be applied. The pressure of the latter instrument is also a decided objection in many cases of disease, especially abdominal inflammations. Indeed, in all superficial inflammations, blood can only be drawn from the neighbourhood of the disease, and not from the immediate seat of it—whereas, the leech may be applied on the inflamed part itself, with very few exceptions. The scarcity of the leech in these Islands, which may partly be traced to the destruction of its accustomed haunts by the cultivation of our waste lands—and partly to the increased employment of the animal, unfortunately renders us dependent on a foreign supply which, in times of war, must always be preta-

rious. Hence, many persons, even above the lower classes, are excluded from the benefits of the animal by the greatness of its price—or purchase them by sacrifices and privations which they can but ill sustain. Every mean, therefore, by which the propagation of the leech can be facilitated, and its mortality checked, deserves to be most attentively explored and sedulously cultivated. It is evident that these objects can only be attained by close observation of its natural habits and propensities, and by correct acquaintance with its structure and physiology. On this account, we shall take a comprehensive view of the subject, and hope, by the extensive diffusion which it will receive through the medium of our journal, on both sides of the Atlantic, to render some service to the profession at large. We shall follow Dr. Johnson's arrangement, adopted in his first work, as best calculated to forward our objects in this eclectic article.

SECTION I. *The Medical History of the Leech.* Casual observation of the effects of the leech, in its attacks upon other animals, probably suggested the first idea of its introduction into medical practice; and experience of its beneficial operation on the human frame, when suffering from accident or disease, would alone be wanting to sanction and extend its employment. During the infancy of medicine, in the schools of Egypt and of Greece, the uses of the leech appear to have been unknown. Themison, disciple of Asclepiades, and founder of the methodic sect, who practised at Rome about the close of the reign of Augustus, or commencement of that of Tiberius, first notices them in his writings. He applied a cupping-glass over the orifice, formed by the leech, in order to augment the flow of blood. Of his success in the practice, nothing can be learned. Among the more celebrated authors, who subsequently wrote in commendation of the virtues of the leech, may be principally enumerated, Pliny the naturalist, Aretæus, Ætius, Ægineta, and Zacutus Lusitanus. By these it was, for the most part, employed, or recommended, against topical pains and inflammation. In several forms of chronic and febrile disease, abstraction of blood, by its means, from the hæmorrhoidal veins, was deemed an almost unfailing remedy. If, in the present day, the intimate connexion which subsists between those veins and the system of vessels constituting the portal vein and inferior cava, were better recollected, and the indications which it might suggest in diseases of the abdominal organs, more frequently acted upon, the reputation of our science and the interests of the sick would, we are convinced, be, on many occasions,

very materially promoted. Much too as the practice of the French physicians in this respect has been ridiculed and decried by some of our countrymen, it is equally certain, that applications of the leech to the external sexual organs of the human female, constitutes one of the most direct and unerring means whereby the sufferings to which she is exposed, from frequent disturbance of the functions of the uterine system, may be relieved. Zacutus records a case of phrenitis, consequent on retention of the menstrual flux; wherein, after the failure of the wonted remedies, the application of four leeches, properly secured by thread, to the vagina in the immediate vicinity of the orifice of the womb was followed by cessation of the phrenitic symptoms and speedy convalescence. Nor, in the inflammations, chronic or acute, of the serous membranes lining the great cavities, is the decided superiority of sanguineous depletion by leeches, from the neighbourhood of the inflamed membrane, to the practice of venæsection, generally understood or sufficiently appreciated. Little difficulty would be encountered in tracing the medicinal employment of the leech down to the present day, but enough has been advanced to demonstrate its antiquity; and the evidence of succeeding ages has served only to exalt the character of the remedy, and fix it upon a surer basis.

Let us turn rather to contemplate the formidable accidents which may result from its employment, and consider the most prompt and effectual means of obviating the dangerous consequences sometimes induced by fortuitous introduction of the leech into the fauces, or intestinal canal, of the human subject. Such accidents have not unfrequently been witnessed; and in the writings of the ancients may be found a description of the symptoms denoting the presence of the leech in the throat or stomach, and an enumeration of the remedies best calculated to dislodge the terrible intruder.* Of the latter, the principal are vinegar, garlic, salt water, assafoetida, mustard, and other acrid substances, copiously administered; sternutatories of elaterium and hellebore; or, when pain in the throat indicated that the animal was there, retention of cold water in the cavity of the mouth, whereby it might be decoyed into a situation less inaccessible and remote. But the celebrated French surgeon, Larrey, of all the authors with which we are acquainted, has

* Pliny says that the elephants which happened to swallow leeches while drinking, were cruelly tormented by these animals in their stomachs. "*Cruceatum in potu maximum sentiunt hausta hirudine, quam sanguisugam vulgo cæpisse appellari adverto.*" *Lib. viii.*

given the best description of the phenomena resulting from the attachment of a peculiar kind of Egyptian leech to the faucial membrane, and of the method of treatment, by which the dangers of the accident may be averted. The introduction, therefore, of a brief abstract from the Baron's interesting memoirs,* will not be considered, by the reader, irrelevant to our subject, or destitute of instruction.

During the operations of the French army in Egypt, pools of soft and muddy water were frequently met with, particularly in the deserts bordering upon Syria. These contained, among other animals, a species of leech, which, though but a few millimetres in length, and fine as a horse-hair, acquired, when gorged with blood, the volume of an ordinary leech. It was black, and somewhat resembled the species which has been observed in the island of Ceylon. The soldiers, urged by thirst, and unsuspecting of danger, threw themselves down upon the margins of these lakes, and drank with avidity; but many soon experienced the baneful effects of the leeches which they had swallowed. Painful sense of stinging in the posterior fauces, frequent cough and expectoration of glairy mucus streaked with blood, and disposition to vomit, were the primary consequences of the bite. To these symptoms succeeded swelling of the throat; frequent hæmorrhages; difficulty of swallowing and respiration; pains in the breast; increased cough from the irritation excited by the tail of the animal on the borders of the glottis, and perhaps also by that of the effused blood upon its orifice; perceptible emaciation; loss of sleep and appetite; restlessness and agitation, sometimes, unless timely assistance were afforded, terminating in death. On examination of the throat of the first individual attacked by these symptoms, a leech, of the size of the little finger, was discovered in the isthmus of the fauces, and with difficulty extracted by the polypus forceps. Slight hæmorrhage succeeded the operation; and the patient soon recovered. In other instances, gargles of vinegar and salt water, injections of salt water, fumigations of tobacco and squill, were successfully employed to dislodge the leech from the posterior fauces. Sometimes the animal descended into the œsophagus or stomach, from whence, after remaining some time, it was, at last, detached by the use of diluted vinegar, or by the contraction of the viscus itself. M. Latour-Maubourg, chef de brigade, in drinking the water of a small lake on the deserts of St. Makaïre, about one day's jour-

* *Memoires de Chirurgie Militaire, &c.* Tome i. page 359.—See also the translation published by Mr. Waller.

ney from the pyramids, swallowed two of these leeches ; by which he was dreadfully harrassed during the rest of his march, and reduced to the last extremity of weakness and exhaustion. The cough and bloody expectoration continued after his arrival at Cairo ; and medicine, their origin not being suspected, served but to aggravate his symptoms. At length, the leeches were discovered ; one of them extracted by the forceps from the pharynx, and the other dislodged from the nasal cavities by salt-water injections. A leech, situated like this last, in another subject, was only distinguished from nasal polypus by its sudden retraction on the contact of the instrument employed by M. Larrey to detach it. Persons, who, in traversing these deserts, are under the necessity of drinking water infested by such animals, should previously pass it through strong linen ; and, if possible, add to it a few drops of some kind of acid. Should a leech penetrate into the human stomach, it is highly probable, he thinks, that it could not long exist there ; although the facts, observed by Dr. Johnson, warrant an inference, that the animal, until its vital principle became extinct, would resist the solvent action of the gastric fluid. Under these circumstances, copious ingestion of salt water, would, doubtless, accelerate its destruction.

To this account, Dr. Johnson, in his last work, has added an extract from a paper entitled "*Observationes de Cardialgia Hirulinosa*," in which is reported the case of an individual, who, having for some time laboured under a cutaneous affection, was advised to try the sulphureous waters of Baden. In his journey thither he drank some muddy water, shortly after which, he felt pain in his stomach, which continued nearly six months, being sometimes so violent as to throw him into convulsions. He took a variety of medicines, without effect. At length, after taking an emetic, he brought off five leeches—one of them nearly the size of his finger, the rest comparatively small, but all turgid with blood. From this moment he was freed from his complaint.*

In this place it may not be improper to advert to the leech of Ceylon, which proves so incessant and tormenting a plague to travellers in that Island—as reported by Dr. Davy and others. The largest of these animals are seldom more than half an inch in length—broad behind and tapering before—and in substance semi-transparent. It is very active, and is supposed to have an acute sense of smell, for no sooner does a person stop where leeches abound than they crowd eagerly to the spot from all

* Ephemerides des Curieux, &c. 1719.

quarters. In rainy weather it is shocking to see the legs of men on a long march, thickly beset with these creatures gorged with blood, which is also trickling down in numerous streams. It is extremely difficult, if not impossible, to ward off their attacks. Their bites too, are exceedingly troublesome, being apt to fester and become ulcers, sometimes occasioning the loss of a limb, or even of life. The instant a leech fastens on, an acute pain is generally felt, like that produced by the bite of the medicinal leech; and, in a few hours afterwards, the surrounding skin becomes inflamed, with most troublesome itching. This itching sometimes continues several days, till the wound is either healed or ulcerates.

The ancients, whenever the hæmorrhage, consequent on application of leeches, was unnecessarily protracted, relied for its suppression, on plugging the orifice with powdered aloes, bole armeniac, or sponge dipped in liquid pitch; but continued pressure with the finger, whenever the orifice is situated over a bone, will be found a much more direct and efficient mode of accomplishing this object; or, under other circumstances, especially if the bleeding prove very obstinate and menace dangerous consequences, the formation of an eschar by the employment of caustic may be had recourse to with almost invariable success. The method in vogue now is, the passing of a common sewing needle across the wound, letting it remain there and twisting it round, so as completely to prevent the egress of blood. The idea that forcible extraction of the leech from its hold could not be safely attempted, is completely disproved by the uncere- monious practice of the French army surgeon; and hence, the story of the death of the Roman Consul, Messalinus, in consequence of the teeth of a leech being left in the wound which it had inflicted, is probably incorrect.

SECTION II. *The Natural History of the Leech.* Under the genus *Hirudo*, belonging to the order of *Vermes externi* in the Linnæan arrangement, many species are comprehended; but much confusion has arisen from the introduction into it of several individuals of other families, differing essentially from the generic character, as delineated by the Swedish Naturalist.*

* The *Hirudo viridis*, of Dr. Shaw, the *H. alba* and *H. nigra*, of Mr. Kirby are now included in the genus *Planaria*. Dr. Johnson also constitutes a new genus, which, from the retractile tubular tongue of the animals composing it, is entitled *Glossiphonia* (γλωσσα, a tongue, and σιφων, a tube. The following is the generic character which he delivers: Corpus subovatum depressum, caput acuminatum, lingua tubulata, os cauy.

Hirudo. Character Generis. Corpus oblongum subrotundum, anterius et posterius truncatum, muticum, cartilagineum, os caudamque dilatando progrediens. The genus may be divided into those which occupy rivers or stagnant waters, and those which inhabit the ocean.—To the three first species of the former division, *Hirudo Medicinalis*, *Sanguisuga*, and *Troctina*, our observations will be principally restricted.*

H. Medicinalis. Hirudo depressa nigricans, supra lineis flavis sex, intermediis nigro arcuatis, subtus cinerea nigro maculata. Oculi decem, more delineato. Long. Pollices tres. In stagnis—paludibus. Caput, quiescens, subrotundum, progrediens acumdatum. Os, quoad figuram mutabile, rimam triangularem plerumque exhibens. Cauda, circularis, complanata, fibris carnosus e puncto centrali divaricatis.

H. Sanguisuga. Hirudo elongata fusco-viridis, subtus cinereo virens, maculis nigris. Oculi decem. Long. Pollices tres. In stagnis—locisque palustribus.

H. Troctina. Hirudo elongata fusca, supra annulis aureis, maculas atras cingentibus, margine sub-flavo laterali, subtus flavo-viridis punctis atris. Oculi decem. Long. Pollices tres. In rivis—Piscibus crebro adhærens.†

damque alternè affigendo progrediens. Under this genus, he arranges the *Hirudo complanata* and *stagnalis*, by the respective titles of *G. Tuberculata* and *G. Perata*. He thinks also, that the *Hirudo Crenata*, of Mr. Kirby, and the *H. circulans*, inhabiting the Thames, will be ultimately found to belong to this genus. Indeed, it appears probable, that the *H. Crenata*, though described by Mr. Kirby as possessing only *two* eyes, is identically the same as the ordinary *H. Complanata*: for, singularly enough, the figure which accompanies Mr. Kirby's description, is delineated with *six* eyes, and has, moreover, a *retractile tongue*. Such is the argument of Dr. Johnson. We have not paid to this subject attention sufficiently minute to render decisive our opinion upon the justice of his ideas, and the correctness of his classification.

* The remaining species of the *fresh-water* division here enumerated, are the *H. Nigra*, *H. Vulgaris*, *H. Tessulata*, *H. Lineata*, *H. Heteroclyta*, *H. Geometra*, and *H. Marginata*—*H. Indica*, *H. Grossa*, *H. Hippoglossi*, *H. Branchiata*, *H. Muricata*, and *H. Verrucosa*, are the species found in the ocean.

† "I am not aware," says Dr. Johnson, "of this species having been hitherto described. I have denominated it *Hirudo Troctina*, from its resemblance, in regard to the coloured rings or spots, to the trout, and also from its being known and sold in the shops under the name of the Trout-leech. Owing to the great scarcity of the medicinal or striped leech, it has been latterly employed in medicine."

Appellations of the Leech in various Countries. By the Greeks it was named βεῖλλα; by the ancient Romans, *Hirudo* (from *haurio*, to draw out); by the moderns, *Sanguisuga*. The French call it *Sungsue*; the Italians, *Sanguisuca*; the Germans, *Blutegel*; those of the Low Countries, *Lyche lake*; the Danes, *Blodigle*; and Poles, *Pijavka*.

The medicinal Leech is common throughout Europe, more especially in the southern parts. It is often seen, in the south of India and America, to measure six or seven inches, twice the common length of the European Leech. The predominant colour of the animal varies according to the colour of the soil which forms the boundary of its habitation; but the spots or lines with which it is marked, are nevertheless permanent; and hence invariably denote the specific character. Of the motions and mode of progression of leeches, we need not pause to speak. During winter, they inhabit the deeper waters; during summer, the shallows. If the cold of the former season be very rigorous, or the drought of the latter excessive, they retire deep within the ground, leaving a small aperture to their subterraneous abode. They commonly re-appear about the close of March. In cold and cloudy weather, they do not quit the mud. Before a thunder-storm, they rise to the surface, and may be collected with facility. Though considerably affected by atmospherical vicissitudes, they certainly do not predict, with any thing like precision, the changes of the weather. Vigilant observation, made for some weeks on a vessel containing a number of leeches, will suffice to convince any one of the correctness of this assertion.*

The fluids of fish and frogs constitute the food of the *H. Medicinalis* and *Troctina*; but neither earth-worms, nor the larvæ of aquatic insects, are attacked by them. The *H. Sanguisuga*, on the other hand, possesses a voracious appetite, and the faculty of ingesting solid aliment. When urged by hunger, it will seize on the medicinal leech, and even devour individuals of its own species. Dr. Johnson saw one of these gluttonous animals swallow whole, within a very short time, two of the *H. vulgares*, or rivulet leeches; and, three days afterwards, one of them was rejected “in a *living* state,” apparently having suffered but little injury from this awkward discipline;

* It has been stated, on the authority of a French clergyman, that leeches predict changes in the weather with great accuracy. And our own poet, Cowper, was of the same opinion. “Leeches, says he, in point of the earliest intelligence, are worth all the barometers in the world.” This, we think, is a great exaggeration. We never could discover any movements in the leech that could be considered as predictive of atmospherical changes.

a few hours only elapsed ere it was again swallowed. Another of the *H. Vulgares* was observed to deposit several ova, at distinct intervals, after liberation from two hours' confinement in the intestinal canal of the *H. Sanguisuga*. Dr. Johnson also found, from constantly supplying two of these animals with the *H. Vulgares*, both living and dead, that, within thirty days, one of the former devoured fifteen, and the other, twenty of the latter. During the whole period, the water, though occasionally renewed, was turbid, from the copious evacuation of thread-like faecal matter. The digestive powers of the *H. Sanguisuga* appear to possess considerable vigour and activity; for, upon opening two of them, which had each, five days previously, swallowed a rivulet-leech, not a vestige of it could be discovered in the alimentary canal. This peculiarity constitutes a striking exception to the general law of tardy digestion in cold-blooded animals; and is elucidated by a view of the peculiarities of anatomical structure which distinguish the horse-leech: for the intestine of this species is more than double the width of the same organ in the Medicinal and Trout-leech; nor is the stomach so thickly set with membranous folds or partitions. Analogy renders it probable, that the digestive organs of this voracious animal act with increased energy during the summer; and it evidently possesses the power, enjoyed by carnivorous birds, of rejecting, at pleasure, recently swallowed food.

The result of Dr. Johnson's numerous observations and experiments upon the two respective species of this very singular genus is, that the *Medicinal Leech* takes no solid aliment; that, in its native abode, it subsists on the fluids of fish, frogs, &c.; that it possesses not the voracity which distinguishes the Horse-leech; and that it betrays no propensity, like the latter, to destroy its own species, or any other belonging to the same genus.* With respect to the *Horse-Leech*, the fact is, that it

* Plenipus remarks that he has known leeches exist three years in water without any other nourishment. But it is to be remembered that the stomach of the leech will contain from half an ounce to an ounce of blood, and that this fluid is received into several cells or partitions, over which the leech has perfect control, merely allowing so much nutriment to pass into the alimentary canal, as is sufficient to preserve its existence. This may diminish our surprise at the long abstinence of the animal. In short, its stomach may be regarded as a general store-house, upon which it can draw for food as often as its necessities require. It, therefore, carries within itself a sufficient supply for several years, and only requires renewal of the water, from time to time. Upon examination, it has been found that the blood, after remaining some months in their stomach, undergoes but little change, either in colour or fluidity—at least in the first eight cells.

devours alike the *H. Medicinalis*, *H. Fulgaris*, and even the weaker of its own species, in the absence of other alimentary substance; and will swallow almost any thing within its reach. Hence the designation of *H. Vorax* is more characteristic of, and correctly applicable to, the species, than that of *H. Sanguisuga*.

Leeches have been said to possess the extraordinary property of regeneration, when mutilated, or even divided into several portions. The experiments of Dr. Johnson render it probable that this statement is incorrect.*

The leech is exceedingly tenacious of life. Not only will it exist, when deprived of its head or otherwise mutilated, for several months, but sustain little apparent injury or inconvenience from confinement, of many days, beneath the exhausted receiver of an air-pump. A leech thus circumstanced, has been known to support the state of insulation more than three weeks. It is, moreover, demonstrated by experiment, that the animal will live in a glass vessel, containing three cubic inches of hydrogen gas, 2 days 12 hours; a like quantity of carbonic acid gas, 5 hours; of nitrogen gas, 8 days; of atmospheric air, 10 days; oxygen, 12 days; water, impregnated with carbonic acid gas, 4 hours; olive oil, 1 day 16 hours; spring water, the vessel being stopped, 7 days. The organs of the young leech are exceedingly tardy in their development. About five years are supposed to elapse ere they attain a state of maturity. It is probable that the animal will live in its native waters, with an abundant supply of food, at least twenty years.

SECTION III. *The Anatomical Structure of the Leech.*† We have now to contemplate the Leech, first, in its *external structure*; secondly, in the constitution of its *sentient and respiratory organs*; and, thirdly, its *internal structure*. For the sake of brevity, we shall endeavour to introduce into this part

* According to Vitet, if we take a leech, and cut off both its anterior and posterior extremity—taking care to renew the water every second or third day—it will, thus mutilated, live two years or more, apparently unaffected in strength or activity. But the amputated parts are never regenerated. The general distribution of the nervous system, in this animal, which has no common centre of life, accounts for its tenacity of vitality, when mutilated. Vitet ascertained that the leech dies almost immediately when immersed in oxygenated muriatic acid gas, and that the dead animal will remain several years in a vessel filled with this gas, without undergoing any decomposition. Hence, he thinks, this gas may be employed with great success in the preservation of dead animals, particularly insects.

† Two engravings, as correct as neatly executed, illustrate this description.

of our article the concise and rigorous character of botanical description.

External Structure. *Body*, when quiescent, arched, and in length more than an inch; capable, when moving, of great extension; furnished with rings or annular muscles, usually about one hundred, increasing in size, not in number, with age, and each presenting, on its most prominent part, a row of minute tubercles. Mouth, of a circular or horse-shoe figure, but capable of assuming any other; external surface dark grey; internal, light grey; upper lip slightly bent downward with a central cleft; lower, bent inward, and, like its fellow, semi-circular. Sucker, at the oral extremity,* formed by fasciculi of muscular fibres, some disposed in a radiated, others in a circular, direction. Caudal sucker, similarly constituted. First generative orifice, situated in the abdomen, half an inch from the lower lip, round, small, affording passage to the male organ of generation:† second orifice, or vagina, leading to the uterus, distant about five rings from the former, towards the caudal extremity, and with difficulty perceptible: third orifice, or anus,‡ placed on the back, very near the rim of the caudal sucker, and capable of admitting a pin, although smaller in the *H. Medicinalis* and *Troctina*, than in the *H. Sanguisuga*.

ORGANS OF THE SENSES. *Organ of vision.* Eyes ten in number;§ arranged in a crescent shape, at the pointed extremity on the back of the head, the two at each extremity of the arch, more distant from each other than the rest; deep black; when moistened, possessing a fine lustre, and seen beneath the microscope as tubercles jutting from the skin. *Organ of touch*, residing in the lips, and perhaps in the disk which terminates the caudal extremity. *Of taste*, composed

* We have taken the liberty of substituting the more precise terms of *oral* and *caudal* sucker, for superior and inferior. They constitute the two extremities of the animal; and by their means it is capable of very firmly attaching itself to any surface.

† This has been mistaken for a respiratory orifice; but the penis may frequently be seen protruding from it, particularly in the dead leech.

‡ By many celebrated naturalists, the leech has been described as destitute of an anus; but the inaccuracy of this statement is proved by the fact, that a fluid may be so injected through the mouth of the animal as to issue in a stream from the dorsal orifice, and vice versâ. Fæcal matter may also, by compression of the body of the leech, be forced out of this opening.

§ This description applies only to the *H. Medicinalis*, *Sanguisuga*, *Troctina*, and *Nigra*. They "who wish to have preparations of these organs, may readily form them, by cutting off the head of the leech, and subjecting it, between two strong plates of glass, to continued pressure."—Dr. JOHNSON.

of an assemblage of nervous fibrillæ situated in the upper part of the œsophagus. *Of hearing*, none yet discovered. *Of smell*, probably will be found to exist in the puncta respiratoria, by which the leech is very confidently believed to breathe.

Respiratory Organs. The opinion of naturalists on this subject is much divided. Some contend that the leech respired by the mouth ; others, among whom is Dr. Johnson, that the process is executed by means of spiracula or breathing-holes.*

Internal Structure. An epidermis, cutis, muscular and membranous coats, with the interposed cellular substance, constitute the coverings of the leech. *Epidermis*, or outer membrane, thin, fibrous, reticulated ; cast off every fourth or fifth day, and seen, like a small ring, floating in the water. *Cutis*, externally dense and firm ; internal surface flocculent ; texture spongy ; firmly attached to the subjacent muscular coat, especially in the inter-annular spaces, where much of the flocculence disappears. *Muscular coat*, ash grey, strong, elastic, consisting of two strata of fibres, circularly and longitudinally disposed, interlaced and inseparable without injury ; the longitudinal very conspicuous. *Membranous coat*, delicate, lining the whole internal cavity ; exhibiting, beneath the microscope, the appearance of fine lace.

On dividing the belly of the leech, in a direct line from mouth to anus, but not so deeply as to implicate the alimentary canal, the following organs will be exposed to view : *Three piercers*, incorrectly named teeth, cartilaginous, rounded ; furnished with sharp cutting edges ; resting on small eminences, and so relatively placed as to meet, under equal angles, in a centre ; confined by a strong circular ligament, which surrounds the œsophagus ; possessing, when in action, an oscillatory movement, and inflicting a triangular wound.† *A nervous*

* Dr. Johnson is now, however, inclined to admit with Sir Everard Home and Kurzman, that the function of respiration is carried on by what, in his first work, he denominates the *lateral vesicles*. They are sixteen on each side, situated beneath the intestinal canal, containing a quantity of a white fluid which is miscible with water. As the leech then breathes in the same manner as fish, their respiratory organs deserve the name of gill-bags rather than tracheæ.

† Some surprise has been manifested that the leech should be able to inflict a wound with such instruments, which, being entirely cartilaginous, seem little fitted for this office. The wound has, therefore, been attributed to suction alone. But if we reflect on the size of the muscles which regulate the movements of the teeth—their sharp cutting edge—their continual vibration both in effecting the first incision, and in afterwards clearing the passage of any coagulum—and, lastly, the time which the animal takes in making the incision, our wonder will cease.

mass or brain, consisting of a ganglion, which surrounds the œsophagus, and sends off filaments to various parts, particularly two lateral nerves proceeding to the tail, and here and there expanding in their course : and a central nerve, occupying the *interior* of the abdominal blood-vessel, and forming diamond-shaped ganglia, which correspond to a similar formation in the abdominal vessel.* *The blood-vessels* : An abdominal blood-vessel, pursuing a direct line from mouth to tail, enclosing the central nerve, and presenting in its course several diamond-like expansions ; the first of these observed just below the lip ; the second, third, and fourth, respectively, at the origin, middle, and termination of the œsophagus ; the fifth, on the bag of the male generative organ ; the others equi-distant, and ending close to the disk of the caudal extremity : two lateral vessels, nearly straight when the leech is in motion ; when quiescent, assuming an appearance of a circle of festoons ; and, lastly, a dorsal vessel, seated on the back, and passing directly from head to tail. All these contain red blood, and communicate by numerous transverse branches, of irregular distribution.† *The male generative organ*, a strong elastic tube, extremely irritable, enclosed in a circular bag, flattened above and below, about one inch in length, often seen hanging from the first generative orifice. *The testes*, oblong bodies, containing a thick greyish white fluid, placed at the commencement of the first pair of cells or stomachs, on each side of the male organ, and transmitting by tubes their contained fluid to the generative bag.‡ Several oval bodies (*the abdominal vesicles*,) of the size and colour of mustard-seed, placed in pairs on the surface of the cells or stomachs (the first pair near the testes, the others equi-distant and ending about the middle of the last stomach,) connected to the testes by a tortuous tube, and containing a similar fluid. *The female generative organ*, an oblong sac, somewhat resembling in figure a bagpipe, composed of a strong membrane covered with muscular fibres ; connected with the vagina, the orifice of which has been described ; and furnished posteriorly with an oviduct leading to the ovaries : it is en-

* By Hunter, Poupert, and Cuvier, the abdominal blood-vessel, presently to be described, has been erroneously represented as the main organ of the nervous system.

† A distinct systole and diastole is perceptible in these vessels on opening the *H. Medicinalis* alive, or holding up to the light the *H. Vulgaris*. In the former, Dr. Johnson has counted ten ; in the latter, eight of these pulsations in the minute.

‡ Some writers have regarded these as a nervous mass or brain, and the bag of the male generative organ as an uterus.

dowed with a strong peristaltic motion. *The lateral vesicles*, membranous sacs, about thirty in number, occupying the site of every fifth ring, on the sides of the body, and containing the unctuous fluid for lubrication of the surface. *The œsophagus*, about one fourth of an inch long; at first narrow, gradually widening, and again contracting as it reaches the first pair of gastric cells; furnished internally with several longitudinal muscular folds, whereby the motions of the piercers are regulated, externally, with several strong muscular bands: *The cells*, twenty-two in number, or rather a *single stomach* divided into so many partitions; formed by reflection of the internal membrane, and constituting four-fifths of the bulk of the animal; semi-oval in figure, except the two last, which are oblong and terminate in blind sacs close to the anal extremity.* *The alimentary canal*, a continuation of the œsophagus, about the size of a crow-quill; furnished with openings on each side, which lead, and correspond to the several cells, and throughout with membranous folds, which perform the office of valves in preventing a return of the alimentary matter: And, lastly, *the intestine*, about an inch in length; situated between the two last long cells, and confined by two ligamentous bands obliquely directed at its upper part; furnished at the gastric orifice with a valve which precludes regurgitation of the fæcal matter, commonly filling it, into the stomach; at the anal extremity, with a sphincter which opposes the escape of blood per anum in an overgorged leech. The diameter of this canal is small in the *H. Medicinalis*.

SECTION IV. *The Diseases, Preservation, and Management of the Leech.* The leech is said, like other animals, to be infested with lice: and from the frequent occurrence of the following forms of disease, great mortality prevails among the species: 1. An ulcer, variously seated, commonly on the side, presenting at first, only a small ulcerous speck, afterwards spreading in a very rapid and malignant manner; sometimes superficial, sometimes burrowing internally; often tinged with blood; very destructive: the part, constituting its seat, usually contracted.† 2. Another affection, equally malignant,

* The remarkable structure of the stomach may be advantageously exhibited by immersing a leech, when fully gorged with blood, for a week or ten days, in a saturated solution of muriate of quick-silver, and afterwards opening it and picking out with a needle the contents of each cell: or, by filling the cells of the recent dead animal with crude mercury, the precise figure of each will be more clearly demonstrated.

† This ulceration is particularly common in the *H. Vulgaris*.

wherein one portion of the body is contracted in diameter and rigid, and another studded with tumors presenting, on incision, black putrid, coagulated blood: 3. A general flaccidity of the body, with exception of the lips, which are indurated, swollen, purple, often bloody. These diseases do not exclusively affect the leech in a state of confinement; they prevail particularly during summer; are contagious, and invariably fatal. Hence, any leech, exhibiting signs of indisposition, should be immediately secluded from the rest. Should the water, containing the leeches, display a bloody tinge, an impending mortality is denoted; and it will be prudent to separate, and keep them in small numbers, even although apparently healthy.

Leeches, when in considerable numbers, should be kept in a large stone vessel furnished with a false bottom, so perforated as to allow the passage of the animals, and with a stop-cock whereby the water may be drawn off. The false bottom should be so elevated, as to allow the introduction of a turf, or quantity of marsh horse-tail (*equisetum palustre*) between it and the real one.* The water should be preserved of a regular temperature; changed about once a week; and the situation, chosen for the jar, be free from all unpleasant smell. Previously to introduction, each leech should be narrowly inspected; and all those, whose body feels flabby, or exhibits protuberances or white superficial ulcerated specks, should be kept separate, and have the turf and water of the containing jar frequently renewed.

At the time of Dr. Johnson's first Essay, the natural history of the leech was involved in much obscurity, which has since been cleared up by some Continental writers, especially Dr. Noble of Versailles. This gentleman's essay forms a prominent feature in the second work, at the head of this article, and we shall submit a rapid outline of it to our readers.

Dr. N. believes the leech to be *oviparous*, although the majority of naturalists, have considered it to be *viviparous*—a discrepancy, however, which Dr. Johnson endeavours to reconcile in the course of the work. Dr. Noble observes, that the difficulty of procuring leeches in winter has long induced the leech-dealers to collect them in the autumn, and keep them in vessels for ordinary consumption. But although the water be frequently renewed, great loss is sustained, chiefly by the com-

* By these means, the leech is enabled to rid itself of the epidermis, which, unduly retained, might prove a source of disease. During the early part of spring, leech-catchers employ the *equisetum palustre*, in a dry state, to allure the leeches to the surface of the water.

bats of the little animals, the weaker falling a prey to the stronger, by whom they are devoured. With the view of preventing these accidents, Dr. N. applied to the matron of the Royal Hospital of Versailles, who caused a reservoir to be constructed, seven feet in length by three in breadth and the same in depth, having a southern aspect, and being supplied with a current of fresh water. Its sides were sloping and lined with slime or mud. The borders of this little lake were surrounded with turf and a few rushes, to enable the inhabitants to retire to a shady spot during the summer heats. In November, 1820, they placed a colony of 2000 leeches in this reservoir—the grey and the green leech—and here they passed a severe winter without any sensible loss. When the cold became considerable, they buried themselves in the mud—reappearing only when the atmosphere was warmed by the sun's rays. About the end of spring they began to notice some young leeches adhering to the back and belly of the parents—occasionally swimming about, to try their strength. In the month of August they observed conical-shaped excavations in the slime on the banks, in each of which was found a small cocoon, resembling that of the silk-worm, and about the density of a piece of fine sponge. Several were collected and put into a bottle of water. On opening them, some were found with a vacant cavity, having an aperture at each end—others, of smaller size, were filled with a jelly-like substance—in others still, they found from nine to fourteen young leeches in different stages of growth—this growth appearing to bear a proportion to the development of the tissues forming the body of the cocoon. In a few days the young leeches were seen issuing from the cocoons in the bottle, and swimming freely in the water. On withdrawing the empty cocoons, an aperture was seen at each extremity, through which a pin could hardly be thrust. The internal surface of the cocoon was covered with a dense, smooth, albuminous matter. In the ensuing September, Dr. Noble and others had various opportunities of seeing the leeches actually proceed from the apertures in the cocoons. Dr. N. never could observe the old leech fabricating its cocoon around the albuminous matter, on account of the muddiness of the water after the animal had entered the holes in the banks.

It is highly necessary that the edges of the reservoirs should be well furnished with clay, as a nidus for the leeches in cold weather. Dr. N. here remarks the curious fact, that leeches have the means of securing the product of their fecundation from injury, by a protecting envelope—a tissue or kind of felt, resembling fine sponge, and probably formed of the mucus or

slime, with which their bodies are so amply supplied—especially at certain times.

When this memoir was read at the Society of Agriculture, M. De Planey observed, that the existence of cocoons was well known to the leech-dealers in Bretagne, who by means of them replenished their ponds for the metropolitan market. About the month of April or May, they send out labourers, provided with spades and baskets, to the little muddy marshes, where they collect a quantity of mud known to contain cocoons, which mud is afterwards deposited in sheets of water prepared for its reception. Here the young leeches are allowed to quit the cocoons, and after an interval of six months they are conveyed to larger ponds. Horses and cows are driven into these ponds, with the view of affording the leeches some exercise in their future avocation, and in twelve months the dealers begin to collect them for medicinal use. It appears that these animals do not multiply in great abundance, unless they have tasted blood—particularly that of cows.

From these statements, Dr. Johnson admits that it is satisfactorily proved that the leech is *oviparous*—that it produces a cocoon, like that of the silk-worm, in which are imbedded, in a gelatinous mass, the ova of the future leech. Yet our author adheres to his former opinion that the animal is, *under particular circumstances*, viviparous. The reasons adduced are chiefly analogical; but we do not deem the subject of sufficient consequence to spend any time in its discussion.

In reference to the great mortality produced by the combats of these animals, Dr. Johnson thinks Dr. Noble is in error, as far as respects the medicinal leech. For although they are fond of red blood, they do not suck it indiscriminately. That of their own species is unheeded by them. Our author has never known them attack any of their own species. M. Vitet, who paid great attention to leeches for forty years, is of the same opinion. The propensity to combativeness, however, is pretty strong in the horse-leech. This creature will not only destroy the medicinal leech, but even the weaker of its own species—in this instance, almost rivalling man himself.

In this work, Dr. Johnson has republished, from the Philosophical Transactions, two memoirs—one on the mode of propagation of the *Hirudo Vulgaris*, or rivulet leech—the other, being observations on the *Hirudo Complanata*, and *Hirudo Stagnalis*. These our limits will not permit us to notice. An appendix of *addenda* to the medicinal history, natural history, and anatomical structure of the leech concludes the work. These

addenda we have endeavoured to incorporate with the review of his first work, under their respective heads.

We have now to notice some points relative to the *medicinal use of leeching*, which is the subject of the last work on our list—that of Dr. Price. This gentleman has put forth an unostentatious and useful little volume, which we consider it our duty to recommend to our brethren. In noticing the various diseases in which LEECHING is useful, Dr. P. has taken occasion to introduce many practical remarks of much interest, though in an incidental manner. His little work indicates no inconsiderable research among ancient authors—and, what is perhaps of equal value, good sense and judgment respecting those things which pass under his own observation. The first page of the book contains an epitome of the whole, and is expressed in much better language than we are capable of putting together.

“ It may, however, be premised, as a general rule, that in all cases of local congestion, and febrile affections, accompanied with increased excitement of any particular organ or part, the abstraction of blood by leeches, immediately from the seat of the disease, or as nearly so as possible, tends to unload the blood-vessels, in a state of congestion, and to allay morbid action, in a more direct manner than can be accomplished by any other method of abstracting blood—particularly in those cases where, either from the peculiarity or state of the constitution, from age, sex, or a variety of other causes, general blood-letting is inadmissible; the application of leeches, in such cases, is our sheet-anchor, not to be supplied by any other remedy.

“ But it must here be noticed, that as leeches principally remove blood from the capillary system of vessels, the effect of the sanguineous discharge is not speedy enough upon the constitution in general; nor does it sufficiently unload the part itself, as to be trusted to without the aid of phlebotomy, where disease has attacked an internal structure or organ, immediately connected with the vital function of the body.

“ In acute inflammation, then, of the contents of the chest, abdomen, and of the head, or high inflammatory and febrile excitement of the general system, a prompt and copious blood-letting, by the lancet, should first check the violence of the malady, when leeches may afterwards keep down the disease, and conduct it to a favourable termination, without occasioning that expenditure of strength, produced by the loss of considerable quantities of blood from the larger venal branches.” 8.

This short passage contains every thing that is necessary to be said on the subject. Whether the inflammation be internal or external, the propriety and the utility of leeching are unquestionable. If the inflammation be seated in an internal organ, the *local* must, of course, be aided by *general* bleeding and other antiphlogistic means, in proportion to the violence of

the disease. And, in truth, the same may be said of an external inflammation.

But there is some management necessary in the application of leeches, which is too often thought beneath the notice of the physician and surgeon. The part, for instance, should be shaven, if covered with hair, and washed clean with *plain* soap and water—then with water alone—and lastly with milk—or what is better, with porter. The leeches themselves should be taken out of the water in which they are kept, and placed, for a few minutes, on a dry cloth, in order to clear themselves of the slime with which they are bedewed. They are then to be put into a cup of porter, which will induce them to bite with great avidity. In some countries porter is not a very common commodity, and then, if the leeches do not quickly take, some feathers are to be plucked from the wing of any bird, and the points being snipped off, are to be applied to the parts where the leeches are intended to fix. The consequence will be, that the little animals will greedily bite on the spot where the fluid from the feather is deposited.

The leeches are to be placed in a wine glass or tumbler, with a piece of stiff paper to prevent some of them from clinging to the bottom, and also for them to fix their caudal suckers to, when the glass is removed. The glass is then to be inverted on the part. The application of single leeches to particular parts will be best done by means of a leech-glass, with or without the previous application of the feather. The less a leech is handled the better. The leeches being fixed, should be left alone, or covered with a napkin. Leeches sometimes remain for a considerable time dormant on their post. It is then recommended to sprinkle them with cold water, to hasten the sanguisuction. When it is wished to displace them, it may be done by a pin, or by a silk thread or horse hair drawn close between the leech and the skin. Dr. Price and some others aver, that the leech should not be *pulled* away, as in that case, the teeth of the animal will be left behind—the leech rendered incapable of again biting—and the wound be liable to fester. There are others, among them DUBRONDEAU, who believe that, when the leech has made his aperture and begun to suck, he withdraws his piercers—and, consequently, that Pliny's *story* of the death of Messalinus, from the forcible separation of leeches, is a *story* indeed.

The quantity of blood which the leech takes by suction is of comparatively trifling importance. Treble or quadruple the quantity is usually abstracted afterwards through the apertures. It is usual to sponge the bites with warm water, to encourage

the bleeding. For our own parts, (and we have paid much attention to the subject,) we consider the best application to be a warm dry towel, removed from time to time, when it has become saturated with blood. This process saves a great deal of trouble, and we are convinced that the bites will bleed longer in this way than when they are irritated by the sponge. If the part can be conveniently immersed in a tepid bath, there can be no objection to this process. A poultice made with poppy-head decoction is a useful application after leeching, where it is desirable to soothe pain, as well as encourage bleeding. Cupping-glasses are sometimes applied over leech-bites, and where the parts will bear pressure, a great quantity of blood can thus be drawn, and with considerable rapidity. The glasses recommended by Mr. Welsh (suction by the mouth) may be useful at times. Another method of making the most of leeching, though at the expense of the leech's life, is to cut off its tail, and allow the current of blood to run through the animal. This process, however, often fails, by causing the leech to quit its hold. Dr. Price has known leeches survive this barbarous operation. To make the leech disgorge his cargo, people have been in the general habit of applying salt to their mouths—or even throwing them into a plate of salt. This is a cruel practice. The best way is to *strip* them, by laying hold of the tail, and drawing the leech backwards between two fingers pressed as close as possible together. This process, however, is not so easily done as people represent it. And so tenacious is the animal of its prey, that it often requires that degree of violence to empty it which injures its organization. It is proper to allow it to retain a portion (about a third) of the blood for its nutriment. Dr. Price says that the application of vinegar will make the leech disgorge the whole of the blood. We have tried it hundreds of times, and found it to fail more frequently than succeed.

The hæmorrhage which follows leeching, especially in the vascular skins of children, is sometimes troublesome, alarming—nay, we believe, fatal. Various means have been employed to stop the hæmorrhage. The branches of arteries are sometimes cut, and bleed profusely. The trunk of the temporal artery was opened by a leech in a young lad, and Sir Astley Cooper was obliged to cut down and divide the vessel completely, before the hæmorrhage could be arrested. A piece of adhesive plaster, with a compress and bandage, will generally stop the bleeding. But if the blood is still found to ooze beneath the dressings, they should be cast off, and the part well sprinkled with flower, gum arabic in powder, or what is best of

all the puff-ball (*Lycoperdon Bovista*) over which pledgets of lint and the roller are again to be applied. A bit of felt, scraped from a beaver hat, is a good application, as is also a piece of sponge rolled in flower, starch, or gum arabic. Vinegar, ardent spirits, oil of turpentine, muriated tincture of iron, lunar caustic, are all powerful means of arresting the hæmorrhage. In an infant, where a single leech had made a large orifice on the sternum, all these means failed, and we were obliged to keep steady pressure with the finger on the wound for nearly three hours, before the bleeding would stop. Richerand has related the case of a child which was nearly exsanguined from leech-bleeding, and where nothing would stop the hæmorrhage till the actual cautery was applied.

In respect to the management of leeches after they have filled themselves, we are informed by Dr. Price that, in the course of numerous experiments, he has found that, if the leeches be permitted to retain the blood, and are merely thrown into a jar of fresh water, they will become remarkably healthy and firm in their texture; gradually losing their increased bulk, and, after the lapse of a month or two, capable of resuming their functions, as well as, or perhaps better than those which have been purged. He has, likewise, observed that leeches thus treated have remained healthy during a season of mortality among the others. The blood is preserved by the vital powers of their stomachs in a state of fluidity until it is entirely consumed.

But as leeches are sometimes quickly required after having been used, the best way is to *strip* them, and when wanted, they are to be immersed in porter, or coaxed by the application of the feathers, as before described.

We shall make no other apology for the length of this article than the following fact:—that in this metropolis alone, *four* importers of leeches receive about 150,000*l.* per month each, making a sum total of *seven millions two hundred thousand* in one year.

V.

Observations on M. Laennec's Method of Forming a Diagnosis of the Diseases of the Chest by means of the Stethoscope, and of Percussion; and upon some Points of the French Practice of Medicine. By CHARLES SCUDAMORE, M.D. F.R.S. &c. 8vo. pp. 123. London, April, 1826.

THE different subjects touched upon in this small volume have come so often before us in this Journal, and have, in fact, been so much more fully discussed by ourselves than by Dr. Scudamore, that we shall be very brief indeed in our notice of the present production. We are glad that a metropolitan physician has, at last, publicly acknowledged his faith in auscultation, and that faith founded on actual observation of the practice as pursued by the gifted author of stethoscopy itself. Much prejudice, we are aware, obtains in this country, and especially in this metropolis, against the use of the stethoscope in the investigation of thoracic diseases, founded principally, we believe, on the sacrifice of time and application necessary for becoming a proficient in the study of mediate auscultation—a study which we acknowledge is not a very easy one, especially as regards the more minute phenomena disclosed through the medium of the stethoscope. We do not, therefore, much wonder that metropolitan physicians engaged in private practice, which almost all the hospital physicians are, should be averse to a new study like this, which requires time, not only to become acquainted with the principles, but to apply them at the bed-side to practice. The principal object is, to get through as great a number of patients as possible, and that in the shortest time. The common means of investigation are considered tedious enough, and quite adequate to all *useful* purposes—what more, therefore, is wanted?

Dr. Scudamore has, however, visited the Parisian hospitals, and studied stethoscopy under the first masters. We hope he will be successful in inspiring his colleagues of the metropolis to pursue the investigation. This is all we can do or say on the subject, as we have already dedicated more time and space to the dissemination of auscultic principles than any other journalists on this side of the channel. Our author has related some cases in his own private practice where the stethoscope has been usefully employed, but these cases we must refer to the reader's own perusal in the volume itself.

Neither can we dwell long on the other portion of our author's work, which touches on some points of French practice, as contrasted with English. We have given, and we daily give, so much of Parisian *therapeutics* unavoidably appended to *pathology* (the main object of our importation) that the English reader is thus brought, as it were, into the sick chamber, or the wards of the hospital, before he visits the dead-house or the dissecting-room.

Dr. Scudamore makes, we think, some judicious observations on the difference between French and English practice. We have, in various parts of this Journal, remarked that climate, diet, and modes of life, must modify the functions or even the structure of the human frame, so as to render it more or less susceptible of the operation of medicinal agents, and thus account for the different systems of therapeutics adopted by different nations.

“ The general objection amongst the French to the use of calomel prevails almost as strongly as at former periods ; and certainly amounts to a prejudice. I learnt, on good authority, at Paris, that this medicine is usually found to act in a peculiar manner on the constitution of the French patient ; as it commonly produces irritation in the intestinal canal to a degree that causes extreme discomfort. I need not relate with what freedom and satisfaction the English make use of this active medicine.

“ I apprehend that the difference of operation is to be ascribed chiefly to the respective nature of the diet in the two countries. The remark applies most particularly to the free use of light wines, amongst the French. The vin ordinaire must produce very different effects from the English malt liquor ; or the use of plain or soda water, in conjunction with wines of more sound quality. Indeed the difference of regimen appears to me a sufficient explanation. I may here remark how very materially the action of mercurial medicine on the bowels is controlled by suitable preparation of the patient with mild mucilaginous drinks. If, on the contrary, the stomach and intestinal canal be charged with acescent liquor, vinous, or of any other kind, acescent food, and fresh fruits, irritation and disorder, more or less painful, may be expected as almost a certain consequence.” 54.

There may be a good deal of truth in the above observations. The only thing positive which we know on this subject is, that during the late war, when such an immense number of French prisoners were confined in the prisons and pontons of this country, they were treated much in the same manner as English sailors are, when ill ; nor did we observe this *national idiosyncrasy*, if we may use the expression, which seems to prevent the application of our common, and especially our

mercurial medicines to the French constitution. But then, it must be observed, the patients were in our own climate, and living on English fare. This, of course, would make a considerable difference. At all events, in admitting that different nations require different modes of treatment, we are rather more liberal than the French. They condemn our therapeutics without reserve, and measure every thing by their own standard. This is not philosophical.

Dr. Scudamore animadverts on the universal practice in France of trusting to lavements rather than aperient medicines, properly observing, that when the digestive organs are out of order, especially the liver and duodenum, the effects of lavements are insufficient, "and he has witnessed examples in which serious complaint in the liver has made insidious progress, from the circumstance of the patient having placed reliance on this palliative relief, and neglected the employment of an effective course of medicine." Dr. Scudamore has no doubt of the frequent utility of applying leeches to the neighbourhood of the rectum, in various disorders of the abdominal viscera. Nature often points out the remedy by a determination to the hæmorrhoidal vessels. It is needless to remark, that local affections are best relieved by local bleedings.

How often have we reiterated the substance of the following sentiment.

"In active inflammation of any of the important organs of the body, the *decided* conduct of the English practitioner in using the lancet as his chief remedy, promptly and boldly, and persisting till the dangerous force of the disease is conquered, demands, in my opinion, an undoubted preference over the more tardy, and I must add, the inefficient methods of the French. This leading difference in the method of treating dangerous inflammations, appears to me to constitute the most remarkable distinction in the practice of the English and the French physician."—63.

Dr. S. believes that there are fewer severe and dangerous diseases among the French than among the English, owing to the greater stability and dryness of their climate, lightness of their food, greater degree of exercise, and more lively disposition of the people. The *médecine expectante* is still very general in France, and to a certain extent, Dr. S. considers it judicious; nevertheless, he thinks it better to adopt the maxim, "*Veni-enti occurrere morbo*," than patiently look on the coming storm, without taking any means to disarm its force.

Broussais's doctrine is next adverted to by Dr. Scudamore, and nearly the same judgment is pronounced on it as that which we have done on several occasions. Our author finds

great fault with M. Broussais for considering gout and rheumatism as the same disease—he might just as well identify small-pox and measles, because in both there is an eruption on the skin. Gout never assails the husbandman who unites temperance with his labours; but *he* is not exempted from rheumatism in any of its forms. Gout is the disorder of peculiar constitutions—of the adult age—of luxury in eating, intemperance in drink—and sedentary thoughtful habits. Rheumatism appears at every period of life, and in all kinds of constitutions. On the theory that gout is a *gastro-enterite*, with a development of irritation on the joints, the Broussaïans prohibit purgative medicines, and apply leeches freely to the affected parts. Dr. S. admits, that in some circumstances of the gouty paroxysm, the mucous membrane is affected with inflammatory irritation, requiring suitable treatment; but, as a general principle of practice, he strongly advocates the use of alteratives and purgatives, and with only occasional exceptions, discourages the local application of leeches.

As an exception to the timid practice of the French physicians, Dr. S. quotes M. Alibert, and M. Bielt, at the Hospital St. Louis. These physicians give arsenical and other active preparations without apprehension. They prefer small doses of arsenical solution twice a day, for a continuance, to the use of large doses for a short time, in diseases of the skin. Tincture of cantharides, in the dose of twenty drops twice a day, is one of their favourite remedies, alternately with arsenic, in the treatment of the order squamæ.

“ Subcarbonate of ammonia, dissolved in water, in the proportion of two drams to a pint and a half, and given in this quantity daily, is found useful in certain states of cutaneous irritation, apparently caused by a free employment of mercury for syphilis.

“ The inveterate disease called *lupus* is very successfully treated by the application of an arsenical caustic. They allow the part to form a crust, before they apply a poultice or any emollient dressing.

“ Neither expence nor trouble is spared in making the artificial medicated baths. The alkaline bath, prepared by dissolving the subcarbonate of soda in the proportion of two pounds to the necessary quantity of water, is extremely useful when the skin is affected with scales.” 82

Dr. S. has witnessed Laennec's administration of tartar emetic, in the manner which we have more than once portrayed in this Journal. He verifies the statements published on this subject, tried their tartar emetic, and found it equal to our own. Finally; he has made some experiments in this country, (not carrying the doses so far as the Italians and French) and found it to answer with the English stomach. This circumstance

will probably induce our hospital physicians in this country to give the practice a fairer trial than it has yet obtained.

Dr. Scudamore concludes his volume with some slight remarks on the various new medicines which have been lately introduced to practice through the instrumentality of the French chemists; but, for which we must refer the reader to the work itself. We shall close this short analysis by offering Dr. Scudamore our sincere thanks for his zeal in examining the Parisian hospitals, and for the candid and judicious observations which he has made on the practice there. We are gratified that they almost entirely coincide with those which we ourselves have long been in the habit of making, through the medium of this Journal.

VI.

A Treatise on the Effects and Properties of Cold, with a Sketch, Historical and Medical, of the Russian Campaign. By MORICHEAU BEAUPRÉ, M.D. Regimental Surgeon in the French Service. Translated by JOHN CLENDINNING, A.B. and M.D. with an Appendix by the Translator. Octavo, pp. 375. Edinburgh, Maclachlan and Stewart, &c. 1826.

“ ————— fluentemque tabem liquescentis nivis ingrediebantur. Tetra ibi luctatio erat. Ut a lubrica glacie, non recipiente vestigium, et in pro-
no citius pede se fallente, et, seu manibus in adsurgendo seu genu se ad-
juvissent, ipsis adminiculis prolapsis, iterum corruissent, nec stirpes circa
radicesve, ad quas pede aut manu quisquam eniti posset, erant; ita in levi
tantum glacie tabidaque nive volutabantur. Jumenta secabant; interdum
etiam, tum infimam ingredientia nivem, et prolapsa jactandis gravius in
continendo ungulis, penitus perfringebant: ut pleraque, velut pedica capta,
hærerent in durata et alte concreta glacie.”—*Livii Histor. Lib. xxi. Cap.*
xxxvi.

THE motto we have chosen exhibits a frightful picture of the miseries which Hannibal and his soldiers endured in their passage across the Alps, and these had scarcely any parallel in ancient or modern history when Napoleon, at the head of a powerful army, and flushed with conquest, thoughtlessly encountered all the dangers and horrors of a Russian winter.

We learn from Quintus Curtius* that Alexander the Great and his brave followers laboured under almost incredible hardships from cold, not only amid snows in the barbarous regions of Northern Asia, but when they passed the Tanais to subjugate the Scythians. These unfortunate warriors, overcome with necessary wants, sank into despair, and numbers either perished on the road, or lost their feet by congelation. Margat mentions that Tamerlane, accompanied by his numerous hordes of Tartars, and while advancing into Russia, was overtaken by a cold and impetuous wind. Snow and ice were spread over the plain, and produced a cold so intense that the movements of men and animals were nearly retarded. Levesque† has instituted an inquiry respecting the losses in men from excessive cold by the princes and nobles of Russia, who fought with interminable hostility prior to their union with the sovereign monarchy. On the 4th day of October, 1632, the cold became so keen between Montpellier and Beziers that 16 body-guards of Louis XIII, eight Swiss, and thirteen camp-boys were destroyed. Charles XII of Sweden, whom "not want and cold his course" delayed, penetrated into Russia in 1709, and marched to Moscow, regardless of all consequences. The Swedes and Russians could scarcely hold their arms, sinking under an inclement winter and a desolating cold. Unfortunately for this great man, great even in his fall, he saw part of his army perish of misery and hunger amidst the desert and icy places of the Ukraine. Numerous soldiers fell victims to cold during the siege of Asoph under Peter the First—the campaign of Moldavia under Catherine the Second—and that of Persia under Paul the First. In 1719, 7000 Swedes, on their road to besiege Drontheim, expired from insupportable cold amid the snows of the mountains, which separate Sweden from Norway. These, and some other facts, have been very properly dwelt upon by the author, and it is impossible to contemplate them without emotion, since they triumphantly prove that in every age the many have been sacrificed by the few, and that human life has ever been accounted as nothing when it could be made subservient to criminal ambition.

Baron Larrey, surgeon in chief to the French army in the Russian campaign, published a valuable history of it, during the year 1817, in a work entitled, "*Memoires de Chirurgie Militaire, et Campagnes du Baron D. J. Larrey, &c.* (vol. IV.) and of which a faithful and comprehensive analysis was pre-

* In *Vita Alexandri Magni*, Latin and French Edition, 1716.

† History of Russia.

sented in a former number* of this Journal. But in that volume comparatively little was written concerning cold; and as the present is professedly devoted to the consideration of the effects and properties of it, we, by treading in the path of analytic detail, are enabled to offer a novel and interesting subject for the gratification of our readers. More than twenty years have elapsed since any systematic work on cold was printed in this country, yet several have recently appeared in France and Germany, and the productions of Kern and Lombard, of Percy, Tanchon, and Brandis, are well known. A writer, whom we need not name, promulgated, with all the confidence which accompanies self-conceit, the following theory of cold.—“Heat is a stimulus; cold is the abstraction of heat; therefore, cold is the abstraction of stimulus, or is a sedative.” Is this the language of a philosophical mind? is it thus great and influential truths are to be elicited? Miserable indeed, would philosophy be, and science for ever degraded in an age, which could produce a single convert to such a theory. We shall best expose it by adopting the words of an author, whose opinions on the subject of cold are, and always have been rational. To this we might oppose another theory, equally syllogistic,† and nearer the truth; free caloric is a stimulus; cold is the sensation excited by the passage of free caloric out of the body; therefore, cold is a stimulus. But, in fact, the action of cold is by no means so simple. It is complicated, and varies according to its intensity, duration, and the state of the system to which it is applied. It acts at first as a stimulant, in exciting sensation; then as a tonic, in condensing the living fibre; and, lastly, however paradoxical it may seem, as a sedative, by preventing that distribution of blood into the minute and ultimate vessels, which is necessary for the existence of sensibility and irritability, and also by the abstraction of the stimulus of heat.

The preface of M. Beaupré is so brief and modest as to deserve insertion in the language of his translator, and it is only an act of justice towards him, since it will best state what his opportunities have been, and explain what were his intentions in taking up his pen.

“I had scarcely conceived the design of examining the influence of cold on the animal economy, when the numerous difficulties that surround this question in Physiology and Therapeutics, which has been,

* No. 6, September 1821, Old Analytical Series.

† How unlike what Scaliger wrote of Varro,—“qui vere ac methodice philosophatus sit.”—*Scaligerana prima*, p. 144.

and still is, the subject of so much disputation, presented themselves to my mind. I foresaw I should have to reconcile opposite opinions, without deviating from the principles of sound medical doctrine. Nothing more was required to make me hesitate about attempting the subject; but I had had manifold opportunity of observing the action and properties of cold; and though, while occupied in professional attendance on soldiers, in climates of very various temperatures, I had in various circumstances made use of cold applications with success, I confess still, that for want of analytical examination, I had not always been able to explain exactly their physical effects, or manner of acting on the animal economy. The Russian campaign, the sight of the sufferings originating from cold, of which I have been unhappily witness,—what I have myself endured,—what I have read, in short, have induced me to reduce to writing various reflections on this agent, which exercises such great influence over man in health and disease, and to add to them a number of facts from my own observation, or scattered here and there, and which became necessary as a basis for reasonings, and source of useful inferences. It has been my object to make a practically useful work, and to rectify the conclusion still adhered to by some physicians, who, from over-confidence in Brunonian principles, persist in recognizing in cold only an absolutely debilitating property. This double motive gives me some claims on the indulgence of the reader.”
—*Preface.*

This work consists of nine chapters, namely, 1, *Caloric and heat.* 2, *Cold in general.* 3, *The effects of cold on the animal economy.* 4, *Historical and medical view of the Russian campaign.* 5, *Asphyxia, gangrene, and death from cold.* 6, *The application of cold to the hygeia.* 7, *Therapeutical effects of cold.* 8, *Refrigerants.* 9, *The application of cold to disease*; and to which the respectable translator has added an appendix of 52 pages “to strengthen some positions of the author, which appeared to need farther evidences, or as *riders* on clauses in the original, containing decisions too exclusive and unqualified.”—Of the last six chapters we intend to give distinct analyses, and of the first three, obviously least important, the following general summary is attempted, to save space for graver and better matter.—1, Moderate heat, like moderate cold, excites organic action; 2, Heat exalts sensibility, but diminishes contractility: whereas, cold lessens sensibility, and raises contractility; 3, The moderate action of heat and cold is alike conducive to the support of life; their immoderate effects alike injurious, since they annihilate moral and physical power. Extreme heat causes apathy and languor, dissolution of the blood and other fluids, gangrene, and death. Excessive cold chills, benumbs, debilitates, and produces even sphacelus, and loss of life.

4. *Historical and Medical View of the Russian Campaign.*—The historical part is purposely passed over, because it will be found in a preceding journal,* and we studiously, and on every occasion, avoid repetition. The fatigues of marching, atmospherical variations, excessive heat by day and sharp coldness by night, the bad quality of the water that served for drink or the preparation of food, and which was often drawn from swamps and marshes, or rivulets at the bottom of ravines, in which carcasses of men and horses were putrifying, abuse of grain spirit, food alternately scarce and plentiful, sometimes good and sometimes bad, an irregular mode of life, deficient distribution of necessaries, which often led to plunder, may be enumerated as causes injurious to the health of the French soldiers, and in consequence many suffered from illness. Diarrhoea, by quick depression of strength, did much mischief, and this was occasioned by impure water, and bread made principally of rye. When bread was wanting, the soldiers fled to flour, and with this flour, already warmed, they mixed broth or water, seasoned with a little salt. With this compound they greedily satisfied their appetites, and concluded with a glass of water, or of pungent empyreumatic grain spirit. This food underwent an acid fermentation in the stomach and intestines, which rendered it indigestible, and gave rise to windy colics, a mucous atony† of the intestinal tube, and an abdominal colliquation that wasted the body. The heifers, goats, sheep, and oxen, belonging to each regiment, sank into contagious disease from neglect and fatigue. Next followed the conflagration of Moscow, where, amidst horrible disorder, beer, wine, and brandy abounded, and of these many soldiers largely drank. Such excesses, after such privations, were debilitating—they multiplied disease, and consigned numbers to

* No. 6, September, 1821. Old Analytical Series.

† This is a singular phrase, and, with some others, must be attributed to the author, or his translator. At a time when there is such an unhappy rage to coin words, to make them, not what they ought to be, the symbols of ideas, but “the concord of sweet sounds,” it may be excusable to examine into the meaning of “mucous atony.” The obvious meaning is a mucous weakness, yet this, we conceive, is not meant, and we guess it is intended to imply an atony of the mucous membranes. A rhetorician would pronounce such a phrase to be a burlesque *metonymy*, and would reprobate the imitation of it. Those who are responsible for this and similar terms would do well to think of Julius Cæsar, who, in his work “*De Analogia*,” which, unfortunately for literature, has not been preserved, recommended authors and public speakers to avoid, as a rock, every unusual word, or unwonted expression.*—*Rev.*

* Vide Aul. Gell. Noctia. Attic. Lib. I. c. 10.

hospitals established in edifices which had escaped destruction. The burning of Moscow, the anticipated haven of luxurious ease, completed the misery of the French army, and many soldiers, alas ! too many, were seen sick or wounded, retreating at random, sad, pale, and dejected, begging with tears in their eyes for a morsel of bread. Moscow was evacuated in the middle of October, 1812, and a retreat was commenced under hardships that would have appalled the stoutest heart. The autumn had been mild, the fine weather seemed prolonged, and the frost was delayed to mock human hopes. From the 20th to the 25th day of October the cold became intense, and the rigor of winter began to press upon the retreating army. Food speedily diminished in quantity, and horses died on the road from exhaustion along with unhappy soldiers. Unrelenting cold, want of food, and ravenous hunger imperiously forced soldiers, officers, physicians, commissaries, and other functionaries to eat the flesh of horses, which lay in the roads, fields, and ravines. Those who were strongly impelled by hunger ate that flesh raw, but usually it was roasted at the bivouack fire, which only rendered it harder and drier. The soldiers had no longer strengthening drinks :—coffee a little supported the officers. The ice was broken to obtain water to dress horse flesh, or the refuse of vegetables and aliments that the strictest search, and the most cunning marauding could procure. Discipline was relaxed, licentiousness arose from want of food, and numerous soldiers wandered into the plains, and perished by cold and hunger, the sword of the Cossack, or the vengeance of the incensed peasant. Encamped on a frozen soil, sometimes without fuel to light fires, these wretched men, whose clothes were torn or destroyed, arrayed themselves in the most fantastic dresses to obviate the effects of the most piercing cold. The dying and the dead were plundered of their coverings, the petty distinctions of military rank were forgotten, and all were equal when misery and privation reigned. Still, a great number, like desperate pilots steering with shattered sails—men, whose all was courage, stemmed an almost overwhelming torrent, yet even they, to whom victory was familiar and death a blessing, sank in strength :—the skin was dry, filthy, earthy, contracted ; the face was care-worn ; and a long beard seemed to denote wickedness and dirtiness. Many fell victims to a frightful bulimia. Men quickly died on the road, or slowly expired, for neither assistance nor asylum could be obtained. Melancholy and nostalgia did infinite mischief ; they either prepared or accelerated destruction. Along the road, or in the neighbouring ditches and fields, human

bodies were to be seen in fives, tens, fifteens, and twenties, which had perished during the night. Smolensko the army reached early in November, but affording no succour, it was abandoned in a few days, and here again the wounded were consigned to the implacable elements, and reposed on snow which was stained with their blood. Horse-flesh was a never failing resource to the surviving and proceeding troops, and they even became nice as to particular parts, for the brain, tongue, and liver were ever considered to be most tender and delicate. Many individuals had their hands, feet, and ears frozen, and happy were they that escaped the loss of an entire member. Some remained, mortally seized by cold, when obliged to stop to satisfy pressing necessities. Wilna, already exhausted, furnished few resources. The cold was then most rigorous, for early in December it ranged from 9° to 20°. United in one city, the prey of disease and alarm, an immense number of feeble beings, and of expiring sick and wounded, were stretched on the streets and squares, without fire or succour. The private houses and hospitals were filled with about 16,000 patients, and thus did the asylums of humanity become the tombs of mortality. The remains of the army, attacked and harrassed by the enemy, were obliged precipitately to quit Wilna, and marched between rows of frozen corpses, or abandoned persons, who had died unknown and unregarded. Towards the middle of December, 25 to 30,000 men, fragments of a once formidable army, repassed the Niemen. On the public place of Krasnoe, in the villages, through which prisoners of war marched, and on the road to Kursk, heaps of frozen corpses recalled to the mind the verses of Corneille, depicting the battle of Pharsalia.

“ Ces montagnes de morts privés d’honneurs funebres.”

The victims of cold and misery were seen walking, insensible and unconscious, and when human nature, too hardly taxed, could do no more, they sank never again to rise. The danger of stopping was imminent:—safety was only to be had in motion and stimulus. The pulse of those, whose fate was sealed, was scarcely perceptible. Respiration, very infrequent, and hardly sensible in some, was attended, in others, by complaints and groans. Now the eye was open, dull, fixed, wild, and the brain was seized by quiet delirium;—next, the eye was red, announcing transient excitement of the brain, with more marked delirium. Some stammered incoherent words;—many had a convulsive laugh. Blood flowed from the nose and ears of several soldiers, who agitated their limbs as if for a specific

object. Numbers, overpowered by cold, uncovered their chests, and shook their arms like those "labouring under deaf delirium in an ataxic fever." Here they no longer felt a desire for food, and the spastic pressure of the lower against the upper jaw was almost constant, and increased with the progressive effects of that cold, which caused torpor and death. In this manner did thousands perish, and ultimate sickness was nearly the universal lot of those that escaped. A number of soldiers, more or less seriously injured by cold, during the year 1813, filled the hospitals of Poland, Prussia, and Germany. From the shores of the Niemen to the banks of the Rhine the fragments of an army, desolated by cold and misery the most appalling, were to be recognized. Many, whose climax of sufferings was not yet complete, distributed themselves into the hospitals on this side of the Rhine, and even as far as the south of France, to undergo various extirpations, incisions, and amputations. Mutilations of hands and feet, loss of the nose or of the ear, weakness of sight, deafness, neuralgia, rheumatism, palsies, chronic diarrhoea, and pectoral affections attested the calamities resulting from the expedition into Russia. The power of cold over the fauces and trachea, as well as the voice, not particularly noticed by the author, has been finely expressed by a writer who, for his talent and poetry, deserves to be better known, and more read.

"Ægrescunt teneræ fauces, quum frigoris atri
Vis subiit, vel quum ventis agitabilis aër
Vertitur, atque ipsas flatus gravis inficit auras,
Vel rabidus clamor fracto quum forte sonore
Planum radit iter. Sic est Hortensius olim
Absumptus: caussis etenim confectus agendis
Obtuit, quum vox, domino vivente, periret,
Et nondum extincti moreretur lingua disertæ."

Seren. Samonicus, De Medicina, c. 15.

5. *Asphyxia, Gangrene, and Death from Cold.* Few words have been used more loosely by the profession than the word asphyxia. This term from α , priv. and $\sigmaφυξις$, a pulse, simply signifies the absence of the pulse, but is now applied to every apparent loss of vitality. By the present author it is employed to denote "partial congelation" from cold, and it is to be understood in this sense in the pages of this analysis. The states about to be considered are produced by an abstraction of caloric, and stupefaction of the vital powers, resulting from an excessive or prolonged application of cold, either to a part, or the whole of the human frame. The insidious effects of this agent

may extend from the slightest numbness to the suspension and abolition of every motion and feeling. Individuals are generally least or most obnoxious to it in proportion to their powers of resistance. Soldiers, whose dress is little prepared for exigencies, often have their ears and fingers attacked by asphyxia and mortification, while troopers, frequently and even unknowingly, have their toes and feet frozen. Sentinels, victims of an icy night, have been found stiff and motionless. Repose or inaction is dangerous in cold weather. If a sleeping person be exposed, and insufficiently covered, cold soon seizes him, because the vital motions are slower, and favourable re-action is feeble and powerless. Asphyxia and gangrene have supervened upon transition from a high to a very low temperature, or from sudden variations as Larrey has experienced. Moderate stimulus is beneficial to him that keeps in motion, but detrimental if he stop and sleep. Asphyxia* from cold is divided into *partial* and *general*. The local is the effect of cold on the nose, cheeks, lips, chin, ears, feet, and hands; parts far removed from the heart, and whose vitality is consequently less active. *Partial* asphyxia presents various phenomena in its progress, which furnish grounds for a distinction of three degrees.—*First Degree*.—The general action is more manifest on one of the parts exposed. The alteration of the vital properties commences with painful formication. The skin of the extremities of the fingers, nose, ears, &c. after having been for a long time red, hard, and affected with painful prickings, grows pale; its temperature and sensibility diminish; its vitality seems entirely extinct. Local numbness gradually succeeds a disagreeable sensation, of which the subject is glad to be relieved, and thus he is unconscious of a change from bad to worse. Yet this unhappy change may be prevented by frictions with snow, for the points of the nose, &c. at this critical juncture are of a horn white, and resemble the colour of old wax.—*Second Degree*.—After entire cessation of pain the part remains cold and insensible; sometimes phlyctenæ arise; and occasionally the alteration of colour in the skin, which is livid and blackish, evinces from the beginning, mortification. In both of these degrees, re-action infallibly supervenes; and it is announced by lively

* The reader will be pleased to recollect the sense in which this word is employed by the French author. Literally it means a want of pulse, more extendedly an apparent deprivation of life; M. Beaupré uses it “to express partial congelation, only because modern writers have “shewn him the example.” Such an example would have been “more honoured in the breach than the observance.”—*Rev.*

smart pain, and redness of the skin. When moderate, it is salutary, but it is not without danger, when too impetuous, or concentrating its action on a particular spot. On the energetic return of sensibility and contractility, no matter how induced since the effect is the same, the blood and humours flow into the dilating tissues, and occasion a circumscribed distention. An insupportable formication and itching arise in the whole part; sometimes the pain calls forth complaints and cries; and ardent inflammatory action is established along with sharp and biting heat. When the skin, at the highest re-action, preserves an equal redness, the fear of gangrene is less than when it assumes a livid, or violet marble colour. Here the epidermis rises in different places, forms brown or blackish vesicles, which are filled with a serous, bloody, ichorous, or yellowish fluid, whose presence increases the disagreeable and obtuse sensation that is experienced. This disorder is not confined to simple elevation, and desquamation of the cuticle in layers.—It extends into the interior, and constitutes the second degree of local asphyxia since the cold destroys the skin, tendons, or aponeuroses, while eschars of various extent are produced along with an inflammatory circle.—*Third Degree.* This is sphacelus. If to paleness and sensibility there be added a total cessation of organic action, and a feeling of very great weight; if an easy separation of the epidermis disclose a livid marble colour of the cutis, and if to the flaccidity of the muscular fibre, which is insensible to stimulants, there succeeds a putrid exhalation, no doubt can be entertained of the complete sphacelus of the part implicated. *Treatment.* The *contraria contrariis medentur* would here be very dangerous in practice. In very slight numbness, a gentle and graduated heat to dissipate it, or moderate frictions with woollen cloth may be employed without inconvenience:—But when there exist complete stupor, and suspension of all motion, heat is unsuitable, since it would be sufficient to cause rapid gangrene by a sudden change of local condition. The true method consists in slowly exciting reaction, in gently recalling the vital properties, and preventing their too rapid restoration. It is proper to begin with efficacious means on the confines of the asphyxiated part, and afterwards they are to be used generally. Frictions with snow,* or pounded ice, are best:—when

* The general practice of applying snow to frost-bitten parts, appears to be contrary to the observation of an enterprising navigator, who must have had considerable personal knowledge of the powers and effects of intense cold.—“The Eskimaux have a very effectual way of restoring the circulation, which is by laying a warm hand on the place affected. We had always been

they seem to do good, the transition should be to water successively less cold, and after the part has become sensible lukewarm water is to be applied, and ultimately warm water under prudent restrictions. If the violet, or black spots have disappeared, if the affected spot be soft, supple, and red, we must confine ourselves to simple dry frictions with flannel. Where re-action is feeble, where insensibility shows itself with an atony almost cedematous, and where sphacelus threatens, it is allowable to employ "embrocations prepared from oak-bark, cinchona, mustard, aromatic plants, &c. and to which wine, alcohol, myrrh, and camphor may be added." If, at the end of a few hours, the skin have not lost its livid, or violet hue, it is to be scarified, and treated with the topical means just enumerated. Turpentine has been regarded as an advantageous remedy for dissipating numbness from cold. Internal excitants may sometimes be useful, and they shall be noticed under *general asphyxia*. Gangrene once established, whether primary or consecutive, only demands ordinary management, and, according to strength and means, nature, sooner or later, makes a boundary between the dead and living tissues.—*General asphyxia* extends at once over the whole machine, and exhibits the image of perfect death; yet persons, found senseless and benumbed, have been brought to life after a lapse of twenty-four, or forty-eight hours. Man re-acts against a rigorous and immoderate cold as long as his strength and courage will allow, but re-action has its limits, and a moment arrives when the powers of the vital principle are exhausted. Then, and not till then, the faculties, physical and moral, seem as if enchained, and at length abandon that body, which they have so stoutly clung to under every disadvantage, to the progressive and always increasing power of cold. Shiverings, puckerings, paleness, coldness of the skin, livid spots, and "muscular flutterings," indicate the shock which is given to the vital forces. The subject feels syncope approaching; his stiff muscles contract irregularly; his body bends and shrinks; his limbs are half-bent; sometimes lassitude invites him to repose;—occasionally a feeling of weight and general numbness retards his steps; his knees grow weak, and he either lies down or falls. He then experiences an invincible propensity to sleep; every thing around him appears strange; his senses are confused, his mind

accustomed to rub the spot with snow, which frequently caused irritation, and left the part so tender as to render it extremely susceptible of other attacks."—*Capt. Lyon's Private Journal, &c. &c. London, 1824, Octavo, page 124.—Rev.*

dull, his ideas disturbed, he stammers and raves, and if he be free from suffering he is often not so from agitation. Now he cannot be roused, he entreats to be permitted to sleep;—he slumbers; remote parts become cool; respiration, at first interrupted, is slow; the contractions of the heart are feeble, quick, hard, irregular, and sometimes painful; the pulse is progressively smaller; the central heat is extinguished; the brain stupefied; the pupils dilated; and, finally, a deep and mortal coma is inevitable unless fortunate succour arrive.—*Treatment.*

The body is neither to be transported into a heated place, nor immediately are warm substances to be applied; for strong re-action would, perhaps, exhaust the remaining vitality. Again, the rapid return of circulation to the surface, and the dilatation of the tissues, owing to sudden transition from cold and condensed to warm and rarefied air, produce shooting pains, dyspnoea, suffocation, and even death itself. Numerous are the instances of travellers who, greatly suffering from cold, have perished from immediate exposure to a large fire, whilst those that have taken opposite means have been preserved. No state of asphyxia, however apparently complete, can justify the neglect of aids appropriate to the excitation of vitality. Individuals long buried under snow oftener recover than those do who have been exposed to the air. Curious cases of such recoveries are to be found in the Bibliotheca Britannica, the old Journal de Médecine, and the Memoirs of the Academy of Stockholm. The body should be quickly stripped, laid on a hard surface, and placed where there is no current of air, and where the temperature is a little above that of the atmosphere. Frictions with some exciting tincture are to be made on the præcordial region and umbilicus, and followed by the application of warm coverings. Afterwards the use of snow, iced water, and water successively less cold is to be employed. This first operation ought to continue nearly fifteen minutes; next, water a little warmed, and, ultimately, luke-warm, and hot water. When circulation and respiration are sensibly restored, when the muscles lose something of their inflexibility, and a little heat is manifested, the body must be quickly wiped with dry linen, subjected to dry frictions with flannel, and wrapped in a woollen blanket. Irritation of the nostrils, rude frictions with a brush dipped in vinegar on the hands and feet, brandy, wine, enemata, rich broths, and medical stimuli claim attention. When the vital heat is uniformly established, and the chest dilates itself well, and the motions of the heart are strong and regular, exciting drinks must be interdicted to guard against morbid re-action, fever, or inflammation. A slight moisture

should be maintained on the skin, and the first solid food ought to be light and restorative. Cold produces the fatal effects enumerated whether above or below 0°.—Moderate cold continued causes the same consequences as severe cold of short duration. Cold sometimes acts like opium, inflicts a deadly stroke on contractility and sensibility, directly benumbs the central system, and the irritability of the heart. Prosper Alpinus, in his work, "*De Presagienda Vita et Morte*," has promulgated similar opinions. As the action of cold is commonly slow, and the exposure of a few hours duration produces death, the calibre of the vessels diminishes, and repels the blood towards the cavities of the head, thorax, and abdomen. The consequences are an obstruction in the pulmonary circulation, and venous system of the brain, which disturbs the functions of that organ, and induces somnolency. These statements are corroborated by the flowing of blood from the nose and ears and lungs, unnatural redness of the viscera, engorgements of the cerebral vessels, and sanguineous effusions. It would seem that cold sometimes causes excitation of the brain which may prove mortal. Battie* saw a man who became maniacal after exposure to very rigorous cold, and Boerhaave† mentions a coachman, that died of cold, in whom there was inflammation of the brain, particularly of the right hemisphere, which adhered to the dura mater by a false membrane.

6. *The Application of Cold to Hygeia.* Cold acts on man, 1st, By a tonic property direct, derived from vital re-action; 2dly, By a tonic property indirect, resulting from abstraction of stimulus, or prevention of excessive diffusion and dissipation of organic activity. The former occurs in winter, and the latter in summer. In regard to therapeutics, cold may be considered under the heads of air, bathing, drinks, and aliments. Here the author's observations are judicious, but well known, and need not be farther entered into, since they are only subsidiary to practical medicine, and to the common occasions of life. The effects of cold air and bathing, cold drinks and aliments cannot be deemed desiderated information in an age so enlightened.

7. *Therapeutical Properties of Cold.* Cold, as a curative agent, has fixed the attention of ancient and modern physicians. Melampus, who, at his return from Egypt, introduced the use

* See his Aphorisms.

† Comment. Lipsiens. vol. I. pars I, p. 232.

of the cold bath amongst the Greeks, may be named as the first, and likewise Erasistratus, Musa, Hippocrates, Avicenna, Celsus, and Galen. An "attentive and elaborate analysis has led" the author to distinguish and determine upon seven therapeutical properties of cold; namely, 1. A refrigerating property; 2. An exciting; 3. A sedative; 4. An astringent; 5. A tonic; 6. A debilitating; and, 7. A perturbing property.

—1. *Refrigerating property.* This is sufficiently shown during fevers and inflammations, where the skin is hot and dry, the eyes sparkling, the lips parched, the breath hot and fetid, the pulse hard, the thirst intense, and where cold, internally and externally administered, acts like a charm, and induces perspiration, tranquillity, and sleep.—2. *Exciting property.* From this, animal and organic life receive a shock that renders them more active, and occasionally overcomes insensibility and torpor—*e. g.* syncope, asphyxia, the hysteric paroxysm, cold affusions to the head, or ice to the eyes, forehead, temples, or back of the neck. Thus the washing of the lower half of the body with iced water, frictions with snow or ice on the sacrum, or pubes and perineum, have been successful in palsy of the bladder, and incontinence of urine from debility. The washing of the abdomen with cold water excites the peristaltic motion of the intestines, and produces evacuations, while the same effects have resulted from cold water thrown on the belly and limbs.—3. *Sedative property.* Cold enjoys a sedative effect very different from its debilitating one, for the first operates by merely diminishing excessive sensibility, while the second is exercised on, and destroys all, the vital properties. A few simple facts will prove this sedative power of cold. The exaltation of sensibility in the pharynx, cesophagus, and stomach, caused by pungent food and drinks, &c. is allayed by cold water, as well as the keen thirst of wounded persons after operations, and which is only the result of nervous irritation. An enema of cold water lulls the feeling of pungent heat, and the painful gripings of hypercatharsis. The application of iced water subdues spasm. In diseases marked by increased sensibility cold acts like the most potent narcotics; and the bath and fomentations are the most useful forms.—4th, *Astringent property.* This is evinced by cold producing an internal fibrous contraction in living tissues. This occurs only in the sick, where debility is not considerable. The employment of cold as an astringent removes looseness of the skin, cures or relieves relaxation of the sacro-sciatic ligaments, emphysema, relaxations, particularly of the scrotum, penis, and labia, prolapsed vagina, uterus, and rectum. Simple washing with cold water

arrests slight hæmorrhages, and benefits thrombus, and bloody tumours from contusion.—5, *Tonic property*. The body or a part is strengthened by cold applications which provoke reaction. Cold overcomes original weakness, and invigorates the frame. The number of diseases benefited by the agency of cold is well known to the most cursory observer.—6, *Debilitating property*. Cold is one of the most potent debilitants in therapeutics. Abstraction of caloric, universal constrictive spasm, diminution of sensibility and contractility to the last degree, are its principal destructive efforts. Yet still cold as a debilitant may be advantageously used in one class of diseases, and the ends to be attained by it are, 1st. To diminish excessive vital action, local and general, to lower the excitation of all the vital properties, and to restore them to their accustomed healthy condition. 2dly, To reduce them to a suitable degree that the disorder may follow a safe and regular march. 3dly, To produce a judicious exhaustion of the constitutional powers to prevent their extraordinary development, or a recurrence of their probable exaltation. Cold applications, improperly applied, act externally and internally;—first, they weaken the part, then, the effect extends, by continuity and sympathy, over the whole frame, and, besides other obvious mischiefs, they sometimes cause inflammation to terminate in gangrene.—7. *Perturbing property*. This depends on sensation and brisk spasm. The strong and unusual impression of cold excites general surprise, and produces over the whole sensitive system a sudden shock which modifies its condition. Hence its capability of breaking through the continuity or periodicity of certain nervous movements; and in this way it is to be considered as antispasmodic, whether acting immediately or by sympathy. In the latter case, the perturbation is a revulsive excitement, and destroys the movements existing elsewhere. Spasms yield to sudden cold:—cold water removes hiccup:—iced water enemata have subdued convulsions:—ices have cured hysterical women of palpitations, and imminent suffocations. Affusion of cold water on the head has been beneficial in certain cases of vertigo, and obstinate head-achs. Immersion by surprise has successfully treated intermitting mania. Thus are cold applications useful in active hæmorrhages that depend essentially on the nervous system.

8. *Refrigerants*. Every substance, solid or fluid, simple or mixed, which, when applied to any surface, whether internal or external, produces all the effects of cold, is denominated refrigerant or frigerific. Under that general name shall be in-

cluded; 1, *Cold air*. The use of this is manifest in inflammatory and febrile diseases as well as for the purposes of health.—2, *Common water*. This is the easiest way of applying cold, and its temperature can readily be graduated. Between 65° and 80° water is cool: it is called icy when extremely low and little removed from the freezing point. Water may be brought to this state by a sufficient quantity of ice.—3, *Sea-water*, which is colder in proportion than fresh.—4, *Cold mineral waters*, natural or artificial, chalybeate, saline, sulphureous, or acidulous.—5, *Snow or ice*. They are exhibited by apposition, friction, or as epithems, until completely liquefied. The ice should be pounded, and inclosed, like snow, in a linen bag or bladder three-fourths full. The degree of cold may be increased by the addition of three parts of kitchen salt, or three of sal ammoniac to eight parts of ice. Ice can be introduced into certain cavities by deglutition, or other means.—6, *Mixture of neutral salts*. Desiccated muriate of soda, muriate of ammonia, nitrate of potass, the sulphate, phosphate and carbonate of soda, and desiccated muriate of lime, are convenient for the production of cold. A bag of fine linen is to be filled with two of these salts quickly mixed and moistened with water. An intense cold is made by the admixture also of nitric or sulphuric acid with snow.—7, *Mercury*. This metal causes a lively feeling of cold, owing to the rapidity with which, like many other bodies, it abstracts caloric, and is, therefore, available to practical medicine.—8, *Ether*. Its rapid evaporation quickly carries away the principle of heat.—9, *Herbs*. Cold is applied, internally and externally, in different forms. The following are the principal:—1, *Aliments*.—2, *Cold drinks*.—3, *Ices*.—4, *Cold bath*.—5, *Immersion*.—6, *Pumping or douche*.—7, *Affusion*.—8, *Aspersions*.—9, *Fomentation*.—10, *Embrocation*.—11, *Lotion or washing*. Subjects like these are familiar to every student, and render comment superfluous.

9. *The Application of Cold to Disease*. This is the longest chapter in the present work, and we hesitate not to say the least interesting and important, for it only names, and comments on the various diseases, in which cold, in one form or other, either has, or is supposed to have, a beneficial operation. The information which such a chapter can impart will not be required by any intelligent reader, and to him that is the reverse it could be of little use, but as we have not yet indulged in a single extract, excepting the preface, it may be pardonable to offer a short one from this chapter, which will answer the

double purpose of displaying the manner in which M. Beaupré treats a medical subject, and indicating the power that his translator, Dr. Clendinning, possesses over the English language.

“ Hæmoptysis in an hæmorrhagy in which the application of cold offers, at once, probability of success and hazard of mischief. The irritation which causes and sometimes sustains it, may be exasperated and bring on pneumonia. However, when hæmoptysis is considerable, and menaces the life of the patient, we must without delay recur to means of arresting it. Of all, cold is the quickest and most effectual; it merely requires prudence in its application. The cases inserted by Renard in the Journ. de Med. 1771, show that he has repeatedly cured hæmoptysis, by having pieces of ice held in the mouth, and afterwards swallowed, and even by applying pounded ice on the chest and neck. Gervasius, in his Treatise on the Use of Water, recommends the application of sponges dipped in iced water, to the chest. M. Gallereux, physician at Tonnere, has inserted, in Sedillot's Journal, a very interesting case of hæmoptysis cured by cold drinks, in a weakly valetudinary of sixty. Besides the symptoms peculiar to hæmorrhage, which was abundant and alarming, there were lypothymia, pulse irregular and intermittent, subsultus tendinum. Prescription: pounded ice with sugar internally; bags of ice on the chest; ice in the hands; iced water on the arms; very low temperature of chamber; doors and windows open: the symptoms ceased and recurred three times; the recovery was complete. M. Sedillot subjoins to that case a fact from his own practice, showing the success he has obtained from cold in an analogous case. He had the patient constantly ventilated, and ordered compresses steeped in iced vinegar, or a bladder of pounded ice to the chest.

“ Pediluvia by immersion simply, or affusion on the lumbar region, may also be employed. Iced drinks are given, rendered slightly acid or mucilaginous, or in an emulsion, and sweetened to the taste of the sick. When De Haen failed of arresting hæmoptysis by the means pointed out, he prescribed cold water internally. He states, that in one case he premised bleeding, and the patient recovered.” 264.

We will conclude this analysis by recording on this page the opinions of Mr. Brodie, concerning the production of animal heat, and the operation of cold. Animal heat is in some way or other dependent upon the integrity of the functions of the nervous system; and, therefore, the absolute degree of cold which an animal can bear with impunity will, *cæteris paribus*, be determined by his capabilities of generating heat. Individuals long exposed to intense cold do not endure a painful state, for they gradually lose their sensibility, become drowsy, and die as if by the effects of an opiate. Cold then acts in the following order.

1. It lessens the irritability, and impairs the functions of the whole nervous system.

2. It weakens the contractile powers of the muscles.

3. It causes contraction of the capillaries, and thus diminishes the superficial circulation, and stops the cutaneous secretion.

4. It probably destroys the principle of vitality equally in every part, and does not exclusively disturb the functions of any particular organ.

Those positions have been confirmed by experiment. Dr. Chassat states, that in an animal immersed in a cold bath, death may take place at 70° Fahr. (26° Centig.) although it may be sometimes cooled as low as 69° (17° Cent.) before the animal dies;—but, *cæteris paribus*, the animal dies sooner as the cooling is more rapid. After death the blood is generally florid in the aorta, so that the animal does not die of suffocation. The heart occasionally contracts feebly after the muscular irritability of the limbs and intestines is nearly destroyed. The cerebral veins contain but little blood, and the ventricles only a small portion of fluid. Chassat's experiments coincide with Brodie's, for he uniformly found the heart much distended with blood, and, as in syncope, scarlet blood occupied the left side of it. Invariably the heart ceased to contract before the diaphragm.*—We have added the preceding information because it fills an obvious chasm in the present performance, and which chasm has not been obviated by the translator. We will still farther explain what we mean. When a human being perishes from cold, it is interesting to ascertain how he dies, and what particular functions necessary to life first sink under that destructive agent. Do the functions of the lungs, or does the action of the heart stop first?—If the functions of the lungs, then, the sufferer expires, as they do under strangulation, drowning, and the inhalation of noxious airs; and the left side of the heart and aorta will display black and unoxygenized blood, which is inadequate to the prolonged stimulation of these parts, and injurious to the brain. But if the action of the heart fail first, as it does in syncope, the left side of that organ and its artery will contain scarlet or oxygenized blood. In the former instance inflation of the lungs would be a judicious step:—in the latter a most absurd proceeding. In the matter now under consideration we may, perhaps, safely conclude that intense cold slowly, yet certainly, affects the whole nervous system; that, in consequence, the irritability of the heart, and

* Paris and Fonblanque, Medical Jurisprudence, vol. II. p. 61—2.

of every other muscular part, gradually fails ; and that, finally, life departs with a simultaneous cessation of every function on which its continuance depends.

Our opinion of the present work is decidedly favourable. The author appears to be a cautious, sensible, and well informed man ; and he shows an acquaintance with general medical literature, which is truly creditable to one who has, probably, passed his life either in the dissipations of a garrison, or amidst the hardships of war. Undoubtedly the work has its faults ;—the arrangement is objectionable ; the chapters are too numerous ; there are frequent repetitions, and words are employed in a loose, ambiguous, and even unauthorized acceptance.

The translator now comes under our notice. From indirect evidence we judge him to be a native of Ireland, who has recently graduated in Edinburgh, and who there read, translated, and gave to the world this publication. Not having even seen the original we cannot express any opinion respecting the fidelity of the translation. We are told the translation is a close one, and by the word “close” it is presumed the translator meant that he had followed his author word for word. This, and only this, he could mean, since the language is incorrect, harsh, diffuse, and abounds with colloquial phrases, which are seldom heard in good conversation. The appendix represents Dr. Clendinning in a respectable light ; it indicates him to be a sincere lover of his profession, and an attentive reader of its varied literature. We advise him to cultivate the elegancies of the English language, to prefer sound opinions to futile hypotheses, to bestow his praise with rigid discrimination, and to scorn flippant injustice whenever it is directed against a departed man of genius.

VII.

An Inquiry concerning that Disturbed State of the Vital Functions usually denominated Constitutional Irritation.
By BENJAMIN TRAVERS, F.R.S. Senior Surgeon to St. Thomas's Hospital, &c. &c. One vol. 8vo. pp. 556. Longmans, 1826.

THE subject of irritation has excited great attention in this and foreign countries, during the last twenty years, as may be seen

in the writings of Abernethy, Cooper, Hall and others on this side of the channel ; and of a host of Broussaïans on the Continent. And yet the investigation is in its infancy. It is one of the most important subjects that can occupy the attention of every class of medical practitioners ; for the limits between irritation and inflammation are often so narrow—their features so much alike—their distinction so ambiguous—and yet their nature and treatment so different, that fatal mistakes are hourly committed by confounding the one condition with the other. On this account we were very glad to see a volume announced from the pen of Mr. Travers, on so interesting a topic ; nor shall we fail, in two or three extensive articles, to give it every development which a journal is capable of affording.

§ 1. Mr. Travers properly introduces the subject of irritability, as a prelude to that of irritation. This principle in the animal economy has engaged many pens since the days of Haller. Irritability is not confined to any particular form of organization, as nerve, muscle, or blood-vessel, but is common to all, though in unequal degrees. It is not in the ratio of sensibility nor vascularity, nor muscularity—but, according to the importance of the organ in the functions of life. Thus, muscle retains it longer than any other texture, and the heart longest of all. Parts not essential to life, as the retina, or the muscles of a limb, may lose their irritability, and the patient live ; but, if a vital organ lose its irritability, there is soon an end of life. As for irritability itself, we know nothing of its intimate nature—we only see it through the medium of the phenomena which it produces.

“ Irritability is possessed by different individuals in various degrees, and susceptible in all, of infinite modifications. The tone of the nervous and vascular system, and the actions of the secreting and excreting organs, depending on the original frame and constitution, the degree of physical activity and mental energy, climate, diet, regimen, and in general, the nature and strength of the stimuli by which it is excited, are all modifying agents, direct or indirect, and lead to this variety.” 7.

§ 2. *Morbid Irritability.* Every organ has its peculiar mode of irritability ; and, so long as it neither falls short of, nor exceeds its due proportion, the harmony of the system is preserved. But various causes, internal and external, augment, diminish, or pervert the proportion, and then disorder or actual disease takes place. It is in this point of view that it becomes a particular object of attention to the medical practitioner, as exercising a vast influence over diseases and local injuries. An

excess or deficiency of natural stimuli, or the operation of noxious agents, will convert healthy into morbid irritability—and a natural stimulus applied to a morbidly irritable organ, becomes itself an irritant.

“ An irritable mind is one easily excited, and over excited in reference to the occasion, whether to joy or anger, fear or pity. An irritable stomach is nauseated by many ordinary articles of diet. An irritable bladder is continually parting with its secretion before the stimulus of distention can be supposed to act. An irritable heart, if quickened by exertion or strong mental excitement, becomes tremulous and palpitating. An irritable skin breaks into a rash from many slight causes of excitement, both of diet and temperature ; a plaster, which is in others only rubefacient, acts upon it like a blister. Irritable fauces are slightly sore with a change of the wind, or exposure for a few seconds to a current of air ; and an irritable retina is distressed to dimness by a full light, and, like the mind, disturbed by the surviving representation of transitory impressions.” 9.

Irritability is either proper or sympathetic.

“ First: as applied to the system. If the body is deranged through the medium of the mind, or, *vice versâ*, the mind through that of the body, it is sympathetic. But it is equally possible for the irritability of either to be singly and directly acted upon, and the other not affected, or, if at all, secondarily ;—thus a man may lose his senses from a shock of mind, terror, and the body discover no sign of disorder but that which the loss of mental intelligence and expression occasions, the animal and vital functions going on as usual ; as, to mention for one instance, the case of a young lady who was found playing with the fingers of a skeleton which had been placed in her bed, and who survived to old age in corporeal health, but without a glimmer of returning reason, in a lunatic asylum. Or, on the other hand, a limb may be wrenched off, and the man die in twelve hours, preserving his mind to the last. It must be admitted that the proper irritability of the mind is seldom exhibited, comparatively with the sympathetic ; possibly in strict fact never, but we must be content to reason from the evidence of our senses.” 10.

As applied to organs. If painful news take away the appetite—or pinching a tendon occasion sickness—if anxiety or apprehension excite the desire to pass urine or fæces—if the sight of savoury food excite the secretion of saliva—if certain articles of diet produce an eruption on the skin, or worms in the bowels cause temporary blindness—the irritability of the affected organ is sympathetic. In truth, the sympathies of health and disease are closely interwoven with this property ; and the functions of life would be badly carried on without their co-operation.

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founded on a reciprocity of sensations and actions—made up of sensibility and irritability. Some are direct, as between organs served by branches of the same nervous trunk—others circuitous, as between organs remote but maintaining an indirect communication through the medium of the brain.

An excess of physical irritability in health, is coupled, though not invariably, with a similar condition of the mind. In disease, the existence of either, speedily calls up the other, and too often with great injury to the individual. The following passage contains much truth, and matter for profound contemplation.

“ Mr. Hunter defines an irritable habit to be ‘an increased disposition to act without the power to act with;’ in another passage he describes, irritability ‘over-action to the strength of the parts.’ This definition appears to me to be founded on correct observation. Extreme susceptibility and consequent over-activity are invariably coupled with, and most probably depending upon weak and insufficient powers of constraint and resistance. The same principle which renders a part over-irritable renders it over-active. The balance of the system, adjusted by the state of even health, is disturbed by the preponderance or deficiency of either of its active functions, as by the imperfection or disease of either of its organs. A weak organ or constitution is one easily disturbed and put out of order, because it is continually excited to greater activity than it has power to support, greater, therefore, than is consistent with the harmony of the system. But an action may be morbidly excessive or deficient, independently of organization, and this irregularity, although occasional in its commencement, may become habitual. A too irritable nervous or vascular function is, therefore, as marked a constitutional peculiarity, as irritable lungs or skin. In a physical, as in a moral sense, every individual has a weak part; and this observation would as often apply to the function, viewed abstractedly, as to the organ. Circulation, or respiration, or nutrition, in one or other of their many intricate processes, is below par in tone. The absorbent capillary function is below par in scrofulous habits; the arterial, in the leucophlegmatic; the venous, in those disposed to local congestions; the exhalent, in the dropsical; and the pulmonary, gastric, hepatic, and renal, are respectively the failing functions in persons who become eventually the subjects of asthma, gout, jaundice, and stone. Habits of life influence the body and its functions, as education the mind: but original structure, as well as that altered by disease, has a marked influence on function, and constitution is, to a certain extent, hereditary.” 15.

It is easy to illustrate the influence of an irritable temperament upon the consequences of casual injury or disease. We say, “such a person would be a bad subject for a compound fracture,” and the meaning of this expression is well known. In some individuals the constitution seems ignorant, as it were,

of a local injury, even if severe—while in others, the whole system sympathises—the spirits are ruffled—the nights sleepless—the appetite is gone—the pulse quickened—the tongue whitened—and symptomatic fever established, from very trifling local causes. The following examples are in point.

“ Two gentlemen, about the same time, were the subjects of the common accident termed, a broken shin. The injury was slight and of the same extent in both. One, accustomed to treat such casualties in his own person, simply defended the part lightly with a thin soap plaster, and without intermitting his habits of much daily exercise, both on horseback and on foot, suffered no further inconvenience. The other, making the same application, and using the limb with reserve, was, in the course of three days, compelled to assume the horizontal posture for nearly three weeks, suffering from a painful inflammation of the absorbents of the limb, and glands of the groin, and of the absorbent vessels encircling the loins, accompanied with a smart degree of fever. The bruise was, in this case, followed by an ill-conditioned sore, which, for many days, admitted of no other application than an emollient poultice.”
—17.

A knowledge of the constitution of the individual, is, in these cases, of great importance, and hence the conviction of this, on the part of the patient, is not a mere prejudice, but founded on truth.

“ The unfavourable influence of an irritable frame of mind in the severer injuries and operations, is so universally admitted, as scarcely to require illustration. The fear of pain will often suspend the sense of it, as every one knows who has had occasion to lift the dentist’s knocker. But it is the fear of death which operates with real and serious force against the best efforts of human skill, and this is excited in a degree, professionally speaking, by no means corresponding to the occasion. It is rare indeed for a person to be harrassed with this apprehension, who is approaching that awful crisis. It has been observed, that when the state of trembling alarm is not kept alive by attempts to appease it, the mind, ceasing from further conflict and struggle, gradually subsides into the more favorable condition of tranquil fortitude and resignation.

“ The following are examples of mental influence.

“ A lady, Mrs. S——, who, concurring, as a point of duty, with the advice of her surgeons, reluctantly submitted to the removal of a small tumor in her breast, unexpectedly, and without any apparent cause, died on the morning following the operation. It was then, for the first time, ascertained, that she had prognosticated her death, and the impression that she should not survive had taken so strong a possession of her mind, that her minutest household arrangements were preconcerted, as appeared by the papers found in her cabinet.

“ The following fact, however extraordinary, comes well-authenti-

cated to me, and was, as I am informed, much the topic of conversation at the time of its occurrence.

"About forty years ago, a young lady, afterwards Mrs. W. rallied her companion aloud for listening to the predictions of an itinerant gipsy, when the latter malignantly threatened her to beware of her first confinement. She was shortly afterwards married and became pregnant, and, as the period of her confinement approached, it became evident to her friends that the remembrance of the wizard malediction began to fasten upon her spirits. The circumstances of her labor were natural, but she survived only a few days. The medical attendants, who were men of eminence of the time, stated it as their opinion that mental prepossession alone could be admitted as the cause of her death; not one unfavorable circumstance having occurred to explain it.

"The following case I select, being within my own knowledge, from others of a similar import, of which I have been informed by professional friends.

"A young lady, happily married, impressed probably by some unexpectedly fatal occurrence in the circle of her friends, entertained, from the commencement of her pregnancy, a morbid fear of death in childbirth; which, although unwarranted by any indication of unhealthiness, became, from its continuance and increasing strength, a source of anxiety to one of her immediate and confidential relatives. She was attended by a skilful and experienced accoucheur, who was also her relation. He assured me that the labor was in all respects easy and safe, and that not a single unfavorable circumstance attended it. The child was still-born and imperfect. The mother died suddenly, in six hours after delivery. Every region of the body was examined with care by an eminent anatomist, and presented the appearance of health." 22.

Mr. Travers saw a man expire suddenly on the operating table, during the preliminary steps of a strangulated hernia, where the symptoms and state of parts presented no cause whatever for such a melancholy termination. A man of colour, of middle age, robust, and apparently in good health, was received into the London Hospital, with a moderate sized aneurism of the femoral artery. He readily assented to an operation proposed to him. He fainted, however, on entering the theatre. He took some wine, and the operation was commenced. The ligature was applied, but not drawn. It had been observed that no pulsation could be felt in the tumour during the operation, which was attributed to the preceding syncope. On examination, however, it was found that the man was quite dead, nor could any resuscitative means avail. On dissection, both sides of the heart were found empty, and the lungs gorged with blood. There was no cognizable disease in any part of the body.

Violent efforts to resist pain, or suppress the language of

complaint, are sometimes fatal, and at all times injurious. Thus a man who had been bitten by a cat, and in whom some hydrophobic symptoms had become developed, made an extraordinary resolution to command his spasms, while the excision of the bitten part was going on. He died in three minutes by the effort.

Surgeons well know the danger of operating on persons in a state of what is called "*rude health*," and the importance of preparatory treatment in such cases.* And although persons in an opposite state—*delicate health*, often do better, they are by no means favourable for local injuries or operations. Every one knows how much more fortunate are compound fractures and capital operations in the provincial, than in metropolitan hospitals. It is owing to the subjects of the former being principally agricultural labourers who have breathed pure air, and who, by constant and healthy exercise, have invigorated the processes by which the body derives its support and disposes of the surplus. Whereas, the artisans in the manufacturing districts of crowded cities are not only condemned to breathe a vitiated atmosphere, but are, for the most part, denied the advantages of good nourishment and proper exercise. But of all classes, the draymen, coal-heavers, and multifarious tribe of gin-drinkers, are the most unfavourable subjects for severe injuries, and sudden attacks of acute diseases.

"A pure stimulus, as that of alcohol, contains little nutriment, and having, when taken in habitual excess, a constant tendency to incapacitate the organs of digestion, impairs, and at length destroys, appetite. Malt liquor, when taken in such excess as to form the chief support of life, operates in the same way upon the digestive organs; but its stimulus being less potent, as well as its nutrient matter considerable, its effects upon the constitution are less obvious; under ordinary circumstances, perhaps less injurious. Yet no description of patients fare worse than brewers' servants, under the severe casualties to which they are exposed. They struggle with a morbid plethora. The debauchee of high life levels, in respect of constitutional strength, with the low drunkard of all denominations; and both require a mode of treatment, under severe injury, the very reverse of that which is adapted to the

* We agree with Mr. Travers in looking upon the state of "*rude health*," as a forced state—that in which the nutrient powers are tasked to the uttermost, and successfully struggle with a surplus of diet and stimulus, ridding the body of both by the action, at its full stretch, of every excreting organ. The subjects of this class are perpetually treading that precarious boundary which separates health from disease—and from which a very trifling shock or derangement of some important function may readily precipitate them into actual disease.

man, who, from his occupation and habits, labors, when disease overtakes him, under what may be termed a nutrient plethora; for while the latter will be infinitely benefited by full blood-letting and other means of reduction, wine and opium can alone save the former." 28.

Nothing can be more true than the sentiments contained in the foregoing extract, and it is really wonderful that men will not, for the sake of luxury, abandon the modes of fashionable life, and attend a little more to the dictates of Nature and reason.

In this place Mr. Travers passes a pretty severe satire on the "oracular decrees" of certain eminent men respecting dietetics, considering them as sickly fancies—"Ægri Somnia" which will no more satisfy the minds of unprejudiced persons than the prescribed rations will satisfy their stomachs.—It is, indeed, vain, if not improper, to think of confining each individual to four ounces of food three or four times a day, to be taken without drink. This quantity would be too much for some stomachs, and would not be nearly enough for others. We agree with our intelligent author that "every man's stomach informs him with as much accuracy as his moral sense distinguishes right and wrong, when it is indisposed for food—when it has received enough—and when it is overloaded—and his personal experience not only instructs him earlier and better than any one can inform him, what articles of diet to select and what to avoid, *but is the only process by which he can obtain the information correctly.*" The last part of this sentence requires qualification. Many persons affected with indigestion, and feeling much debility, run into fault, with the greatest circumspection, by taking food of too rich a quality, which gives a temporary stimulus to the stomach and to the whole system, though it is ultimately the cause of much trouble in the digestive process, while the patient is unable to connect cause with effect. Here the advice of the physician will be of great consequence, and may save the individual many an uncomfortable sensation, and fit of gloomy despondency.

"A parliamentary enactment would be quite as reasonable as a tabular regulation, for the quality and quantity of aliment which people are to consume; and truly it were a sad omen for the nation, if the enervating refinement of the age had reduced our organs to this extremity of imbecility; for that, if such a conceit were generally acted upon, it would lead to this result, and make abstinence a merit of necessity, there can be little doubt. It is hardly possible to conceive a more hideous catalogue of evils than that which follows in the train of animal impoverishment; of the physical consequences we may form some idea, but it would be difficult to estimate the extent of its moral influence on

mankind. Neither the physical nor the mental appetites and powers of the individual approach to a state of uniformity, but are, in the highest degree, variable. Man is the creature of circumstance; if he were not, he would be shorn of all his nobler faculties. Emulation, enthusiasm, and all the elevating impulses of his nature would be dormant, and the world would be sunk in a state of senseless apathy." 30.

But, however we may differ about the quantity and quality of our food, and the proper periods for taking it, all must agree respecting the invigorating efficacy of a pure atmosphere, both in preserving and restoring the functions of health. Whoever will take his daily station on any of the piers of Brighton, Ramsgate, or Margate, and watch the countenances of those invalids who fly from the smoke and turmoil and phrensy of London, to gulp a few mouthfuls of sea air, will be surprized at the effects produced by this short excursion. Every day gives the countenance a deeper shade of health, till in a few weeks, sometimes in a few days, we miss a whole train of individuals, who are attracted back to the pandemonium, again to suffer the original deterioration that drove them to the coast.

But to return from this digression respecting food and air. Mr. Travers, observes that certain natural states, as pregnancy and lactation, are unfavourable to surgical operations. And can we wonder at it. An important process is carrying on in the animal economy, the very disturbance of which can not but be hazardous—what then must be the consequence of both the disturbance of this process and the necessity for another new restorative action being set up? Mr. Travers operated for exomphalos on a lady, in the 5th month of pregnancy. The operation was performed early, and promised well, the function of the canal being restored. A diffused peritoneal inflammation, however, destroyed life.

“ On the other hand, I was not long since called to operate for strangulated umbilical hernia on a young woman, fifty hours after child-birth, who had been laboring under symptoms of strangulation since the period of thirteen hours from her delivery. Although the protruded omentum and the gut were in part gangrenous, and a temporary artificial anus ensued, she recovered favorably and is now in perfect health. Had the operation been performed prior to the relief of the uterus, the issue, I feel confident, would have been fatal.” 32.

From a middle-aged woman in full lactation, a scirrhus tumour was removed. The milk sprung as freely as blood under the knife. She died on the sixth day, of inflammation of the pleura. Organic disease of any of the important viscera, as of the lungs, liver, uterus, &c. is unfavorable to a surgical operation, as well as to any casual supervening acute disease. In-

spection of the body, after death, frequently explains the cause of want of success in the best conducted operations.

The gradual reduction of the constitution which occurs during the progress of local disease, is, we all know, favorable to a capital operation, which may be necessary for the removal of that local affection. But this reduction may be carried too far, and the powers of life rendered unequal to the process of restoration. Very trifling operations, in a state of health, have proved fatal. We have seen two instances of crooked fingers being removed for mere convenience, the penalty being death. We lately saw an inconvenient toe removed from the foot of a most interesting young lady, the operation being performed by one of the first surgeons of this metropolis. She had a most narrow escape from tetanus. Mr. Travers has met with similar occurrences. The practice of the lately retired Mr. Geo. Young, of the city, may be deserving of record here.

"The following is an illustration of Mr. Young's practice in his own words. 'A healthy carman came under my care, with a loose cartilage in the right knee-joint. It had several times occasioned him to fall suddenly, and he was very anxious to submit to an operation to get rid of it. It appeared to me desirable to accustom him, before the operation, to the reduced diet, rest, and restraint, which would be necessary after it. He accordingly kept the house. On the second or third day of his confinement, I put on the roller and bound on the back splint, exactly as I intended to do after the operation, to keep the limb perfectly steady. This confinement of the limb occasioned a restless night, some fever, a whitish tongue, a quickened pulse, a little headache, spare and high coloured urine. He was very unwilling to continue the bandage and splint, to which he ascribed (and justly) all his constitutional disturbance, and the utility of which, prior to the operation, he could not at all comprehend. This circumstance, however, forcibly suggested to me the importance of accustoming him to restraint; it was therefore continued; the excitement which it had produced gradually subsided, and when I found that the bandage no longer occasioned any irritation, I performed the operation. Not one untoward symptom arose, the constitution was not in the least ruffled, and the wound healed by the first intention.'" 38.

CHAP. II. EFFECTS OF LOCAL INJURY ON THE CONSTITUTION.

Irritation is, as was before observed, local or general. The phenomena of this state are chiefly displayed through the medium of the nervous system—and is thus distinguished pathologically from inflammation, which appertains more to the vascular system. The relation of the two conditions, however, is as intimate as that of the two systems themselves. Inflammation has been sometimes considered a healthy, because a

healing action. In the same sense, the minor degrees of irritation frequently have a salutary purpose, and conduce to the preservation of the system. Mr. Travers objects to the term "irritative fever," as synonymous with irritation, "because irritation and fever are, in their nature, as distinct as irritation and inflammation," although their reciprocal affinities, are as intricate and complicated as those of the nervous and vascular systems. This is a true remark. We shall see a person of a nervous or irritable constitution, become, from some mental or corporeal disorder, affected with white tongue, quick pulse, restless nights, loss of appetite, torpid or vitiated secretions—in short, with many of the phenomena of fever. But, upon an attentive examination, we shall find some essential characters of pyrexia absent. Thus, although the tongue may be as white as paper, there may be little or no thirst—and although the pulse may be very quick, there will not be a corresponding increase of temperature on the surface, and so on. Still it is difficult, in words, to lay down the line of demarcation between some states of constitutional irritation and fever, though the experienced practitioner will generally distinguish them in practice.

First. Local irritation then, is demonstrated best, by an alteration in the habitual and proper sensation or action of a part—as a depravation or suspension of function in an organ of sense—an aberration or delusion of perception—a vitiation, suspension, or redundancy of secretions—an irregular and involuntary action of muscles, or a partial paralysis, &c.

Secondly. By pain, unattended by any other sign of inflammation.

"The irritable joint, breast, testicle and prostate gland, give no evidence of inflammation. The irritable organ or its vicinity, has in many instances been affected by sub-acute inflammation at some former period*, but not such as to leave any trace of an altered structure. A carious tooth sometimes occasions a tic douloureux of the dental nerve. Worms in the maxillary sinus have given rise to the same painful affection of the sub-orbital nerve. Some calculous concretions, which form

* The most obstinate case of irritable breast which has fallen under my notice, was supposed to originate from a needle having formerly penetrated the integument of that gland. In another female a similar affection of the knee-joint was attributed to the same accident. After the lapse of many months from the extraction of the needles, and in the total absence of inflammation, the complaint continued in either case unrelieved and immovable."

in the kidney, create severe local pain in those organs without a symptom of inflammation. The remedies for inflammation afford no relief, but gentle exercise and medicines which act chemically upon the concretion, remove it. The urinary organs, rectum, and uterus are, as much as any parts, subject to pain unattended by inflammation. But of all parts, the membranes of the brain and stomach probably suffer most in this way. A blow on the stomach, a compression of the testicle, colic from indigestible matters in the intestines, and the paroxysms of stone in the gall and urinary bladders, are frequent and familiar examples of the insufficiency of transient local irritation, though accompanied by acute pain, to excite inflammation. When irritation is unaccompanied by inflammation, it may be, and often is, remote from the seat of the pain and other signs of disorder by which its existence is known. The disease called *tic douloureux* exemplifies this fact abundantly. Numberless modifications of pain—viz. that degree of uneasiness which attracts attention to a part, and seems to admit only of a negative description, the varieties of prurigo, sub-acute and chronic inflammation about the orifices of canals, producing elongations and excrescences, or exulcerations and fissures, and the spasmodic contractions of the sphincters—are for the most part demonstrative of a remote local irritation unattended by inflammation.” 42.

Thirdly. Irritation, when acute and permanent passes into inflammation, proportioned in degree to the severity of the irritation, and to the habit of the patient. Local irritation also, when in a high degree, becomes transferred to the constitution, either with or without inflammation—as in severe cases of disorganization, chemical or mechanical—extensive burns—crushed joints—compound dislocations, fractures, &c.

The terminations of local irritation are in resolution—local inflammation—or constitutional irritation. This last subject it is now our author’s business to investigate.

2. Constitutional Irritation. When this arises from injury or inflammation, and changes from local to general, it becomes imminently hazardous—inasmuch as disorder of the whole is of graver importance than disorder of a part. The causes, especially in a surgical point of view, are the various kinds of injury, as compression, concussion, lesion, or disorganization, whether chemical or mechanical—inflammation, the result of local injury.

“Constitutional irritation I consider to be of two kinds, direct and reflected ; by which arbitrary distinction I mean to imply, that the first is wholly and immediately derived from the part, commences and is identified with the local mischief, and the constitution has no share in its production. The second, on the contrary, originates in a peculiar morbid state of the constitution to which the injury or inflammation has

given birth, or, it may be, previously existing. The first is truly symptomatic, never originating spontaneously, and being immediately induced by the local irritation, is capable of being essentially mitigated or arrested by its removal. The second is occasionally purely idiopathic, and being oftener the cause than the effect of the local action, is seldom influenced by local treatment. In the first, the local appearances are conditions depending on local causes—in the second they depend on constitutional causes. The symptoms characterising direct constitutional irritation, are, in the nervous system, rigor, delirium, convulsion, coma—in the vascular, the fever of phlegmonous, suppurative, ulcerative, and gangrenous inflammation. Those which belong to reflected constitutional irritation, are, in the nervous system, epilepsy, tetanus in all its modifications, and other anomalous forms of spasm, mania, &c.—in the vascular system, the fever accompanying serofulous and carcinomatous inflammation, erysipelas, carbuncle, &c. I deem it no objection to a division of this sort, that the parts are so blended and interwoven as to render the outline here and there obscure or even imperceptible;—it is a circumstance unavoidably resulting from the nature of the subject.” 49.

Our author next proceeds to consider the influence of contingent circumstances in the production of constitutional irritation. These are—1mo. The texture or organ injured—2ndo. The kind of injury—3tio. The magnitude of the injury—4to. The subject of the injury.

1. *Texture.* The natural and healthy sympathy of the constitution with a local injury is in proportion to the sensibility of texture of the injured part. Thus, lesion of tendon, ligament, or cartilage, per se, will excite less constitutional disturbance than that of skin, muscle, or mucous membrane. But injuries are generally complicated—and, at all events, the sympathy with the injury, at the moment of its infliction, is by no means the measure of the constitutional irritation which is, sooner or later, to follow.*

In the following passage it is evident that our author is somewhat in contradiction with a previous statement. “The fact is, with few exceptions, that injuries of parts of minor sensibility and low organization, induce the highest and most alarming degree of constitutional irritation.” The power of reparation in parts being according to their endowment, the system is unusually excited to set up and sustain the restorative effort in injuries and morbid affections suddenly induced, of more dense and inert textures.

* The inflammation excited by the injection of the tunica vaginalis for the radical cure of hydrocele is invariably, in my experience, most languid in those persons who suffer most severely from the operation.” 51.

“ The mucous membrane, which lines the fauces, alimentary canal, and urinary organs, and the serous, immediately investing the viscera of the head, chest, and abdomen, arouse, when the subject of injury or inflammation, the highest degree of constitutional sympathy, from their intimate relation to the vital functions. But, if it were possible to abstract the weight of this consideration, I should say, that the constitutional irritation is more intractable in cases of injury followed by acute inflammation of the tendinous sheaths and ligamentous capsules; or of the fibrous membrane, which forms a close covering to the bones. At least, they differ thus essentially in character. The constitutional excitement characterising the former, assumes the more intelligible and bold form of inflammatory fever, capable of being combated by a vigorous reduction of the animal powers; while that of the latter presents the complicated phenomena of nervous derangement, commingling with, and mysteriously modifying, if not annihilating, the sympathetic fever.”
—52.

Our author makes some short, but judicious observations on the lesions of integument, muscle, tendon, bone, blood-vessels, absorbents, nerves, and internal organs, for which we refer to pages 52—56, and then comes to the *kind* of lesion. From this part we shall introduce an extract in the author's own words.

“ I believe the danger attending punctured wounds depends upon the following circumstances. First. Penetration of some fibrous membrane; for if they do not penetrate deeper than the cellular substance, they are unimportant, even though suppuration ensues, because a cellular abscess quickly develops itself, and readily discharges, or is relieved of its contents. Secondly. The propensity of fibrous and ligamentous membranes to continuous inflammation. Thirdly. The form of wound being unfavourable to the discharge of fluids secreted under inflammation. Fourthly. The occasional puncture of a nervous filament, the division of which would be unimportant.

“ An inflamed fascia betrays, for a time, no symptom of its existence but that of local tenderness. Where matter is formed, an erysipelatous blush covers the surface and a uniform diffused swelling takes place, though, for a long time, without fluctuation. The symptoms following a pricked nerve are developed in the course of the nerve, or in the system to which it belongs, more than in the wound. It is not, therefore, the form of wound in itself considered, but the form co-operating with the depth and the textures implicated, the obscurity attending suppuration in its commencement and progress, and the consequent neglect of repose and precaution, which render punctured wounds serious in their consequences.

“ Contused and lacerated wounds seldom admit of adhesive inflammation: being the result of violent læsion, the texture is in part disorganized, and sloughing ensues. The tone of the surrounding parts is destroyed. If the dressing be such as to act like a stricture or ligature,

from the tightness of its application, or the swelling which is occasioned by re-action, evil consequences ensue. If the injury be confined to cutaneous texture, erysipelas ensues, as we see in the scalp—if it extend to muscular or tendinous fibre, as in lacerations of the hands and feet, tetanus is the consequence most to be apprehended. It is owing to the widely dissevering and destructive nature of the injury, and the processes of inflammation which must ensue, and not unfrequently, to their interruption and exasperation by ill adapted treatment, that the system sympathizes so deeply in this form of wound. Gunshot wounds come under the last denomination, with the additional irritation created by foreign substances, and are frequently productive of tetanus. Comminuted fractures are accompanied by laceration, contusion, or irritation of muscles by spiculæ, and are, for this reason, especially dangerous.”—60.

The extent of an injury must, of course, have considerable influence on the quantum of irritation. The exposure of the entire muscle of the calf of the leg—or half the scalp—or balls performing the circuit of the trunk—extensive burns, &c. are calculated to excite our fears for the constitution; though it must be admitted, on the other hand, that mischiefs of much smaller dimensions, as slight abrasions, punctures, and the like, are now and then fatal in their consequences. The magnitude of an injury is felt in two ways—in its immediate, and in its secondary effects. Either the system breaks down at once, and the vital functions are stagnated by the appalling shock which they have received; or, having withstood this, the constitution, with diminished powers, engages in the unequal conflict—erysipelatous or gangrenous inflammation is set up, and it sinks exhausted under the wasting processes which must clear the way for reparation.

In respect to the *subject* of the injury, it is evident that age, sex, and condition—climate, regimen, and other adventitious circumstances, must modify the moral and physical constitution of the patient, and thereby influence the result of injuries.

Scrofula in the system will often mask the symptoms of constitutional irritation, or cause them to appear comparatively lenient at first, so as scarcely to disturb the general health, and the onus of the mischief falls, as by accumulation, upon the more advanced stages of its progress. Reflected irritation is first displayed in the formation of the hectic paroxysm, and ultimately in the signs of consentaneous morbid changes in internal organs.

CHAP. III.—DIRECT IRRITATION.

The following are the more frequent causes of this condition. 1mo. Sudden, extreme, and unremitting pain, and certain affections of the mind co-operating with bodily disease. 2ndo. Injuries and operations. 3tio. Inflammation, the result of injury, or operation, terminating in suppuration or in gangrene. 4to. Exhaustion from hæmorrhage or colliquative suppuration. 5to. Poisons, animal, vegetable, and mineral. Mr. Travers now proceeds to offer examples in illustration.

§ 1. *Bodily Pain—Mental Impression.* Pain itself, in a certain degree of intensity and duration, has been often fatal. Difficult and protracted parturition has offered some melancholy examples of this.

“ There is a case in which, with an unconfined state of bowels, abdominal after-pain, aggravated by pressure, augments, at no distant period from delivery, to a degree sufficient to induce the belief that puerperal inflammation exists: the pulse is accelerated, and notwithstanding its want of power, and a general expression of feebleness, the practitioner, suspicious of the pain, takes away a full quantity of blood. No satisfactory result is obtained; the pulse and the patient sink together, and a fatal coma succeeds. This is a pain not of inflammation but of irritation, and would have a better chance of relief from laudanum than the lancet.” 67.

Our readers are aware that Dr. Hall has drawn the attention of the profession very strongly to this important class of affections. A case is introduced by our author, in illustration, which was communicated to Dr. Merriman by his brother-in-law, Dr. Gooch. We shall abbreviate it.

A lady, aged 31, fell in labour of her sixth child, and on examination, a large fleshy substance was found presenting. The membranes protruded and were ruptured; but the accoucheur was obliged to turn and deliver by the feet. The placenta was expelled, and every thing appearing safe, he left the patient at seven in the morning. At three he was sent for, the lady having such violent pains that she thought there must be another child. The state of the abdomen negatived this idea, and an opiate was given. On returning at eight in the evening, he found that the pains had been as violent as ever. A soft tumour was felt pressing on the os externum. There was no hæmorrhage. An anodyne mixture was given, but the pains continued, with violent expulsive efforts all night. Next morning the patient had a languid pulse and a pallid countenance. A large fleshy tumour had been forced out of the va-

gina. She continued to suffer and to sink through the rest of the day, and expired in the evening.

On opening the body the uterus was found contracted, but its mouth was dragged down as low as the os externum, by a tumour which grew from it by a broad base. It was of a livid colour, and weighed nearly four pounds.

This case is curious, as presenting the rare occurrence of polypus in pregnancy, and as a striking proof that pain can destroy life.

Mr. Travers thinks that, in some mortal injuries, as rupture of the stomach, gall-bladder, urinary bladder, &c. death is often produced by pain, before the consequent morbid changes are so far established as to make it credible that the result is to be ascribed to their influence.

“ I was called some years ago to a gentleman writhing with pain in the abdomen, which he had endured for the space of two hours previous to my seeing him, and described as unlike any that he had ever experienced. He accosted me in these words: “ Doctor, if you cannot put an end to this pain it will very soon put an end to me.” So true was his prediction, that in twelve hours from a state of comparative health (he had been at the theatre the preceding evening) he was no more. His disease was an ulcer in the pyloric portion of the stomach, which had perforated its coats, and allowed of the escape of its contents into the general cavity.” 72.

Our readers well remember a nearly similar case which we stated lately, that came under our care with Mr. Stanley and Mr. Best, in the person of a gentleman in the neighbourhood of Covent Garden.

Poisons taken into the stomach seem to destroy life through the medium of the nervous system, as characterized by overwhelming pain, without competent organic change to account for the extinction of vitality. In all cases, Mr. T. observes, pain has its seat in the brain, being only a mode of sensation; but it is probable that the *expression of suffering* is often a fallacious criterion of the *measure of pain* endured, owing to the difference of temperament in individuals. Every texture has its characteristic sensation under irritation—and the different forms of injury and of inflammation have also theirs. There is a pain of the nerves—of the muscles—of the serous membranes—a pain of laceration, of division, and of distention, of suppuration, ulceration, &c. and the figurative terms, burning, pricking, shooting, lancinating, throbbing, &c. are in constant use to express these.

“ In most instances of death from violent disorganization of texture,

little, if any, pain is apparently endured. The shock suspends the sensibility of the system without deranging the mental faculties, although their vigor may be considerably abated. But where the symptom of excruciating and enduring pain is present, unaccompanied by the shock of violent injury, it excites and absorbs the faculties of the mind ; renders the sufferer wholly indifferent to external objects, and insusceptible of domestic sympathy and the tender emotions ; makes death an object not of terror, but of earnest and unceasing solicitude ; and terminates life by exhaustion in a very few hours." 76.

In operations, protracted by unforeseen difficulties, as in lithotomy, the patient has begun to die upon the table. The same happens in protracted parturitions. But where pain, however severe, has intermissions, as in tic douloureux, it can be borne for a long time, though even so, it gradually undermines the constitution, as was proved in the melancholy case of the late Dr. Pemberton, whose remarkably athletic and robust frame became emaciated to a shadow by mere corporeal suffering. "Pain," he was wont to say, "is the greatest sedative in nature."

"The first effect of intense and unremitting pain is precipitation of the action of the vascular system, with corresponding sensorial excitement ; but neither of these signs are of long duration. The pulse, which has at first a strong bound or jerk, soon becomes small, tremulous, and irregular, or fluttering ; the countenance, the features of which in the first instance are braced and compressed by a strong convulsive expression, quickly becomes relaxed, hollow, and ghastly. The extreme preternatural mobility of the muscular system, indicative of great restlessness, disappears, and a state of stupefaction and indifference to surrounding objects announces the state of exhaustion. If pain be the result of inflammation, its gradual increase prolongs the stage of excitement. If on the other hand its accession in an extreme degree is instantaneous, as from breach of texture or the operation of any destructive agent upon the system, the stage of excitement is comparatively short-lived. And when the description and extent of mischief inflicted are such and so aggravated as to produce a sensorial paralysis, evinced by partial stupefaction without absolute loss of consciousness, it so far neutralises or renders void the effect of painful impressions, as to admit of a direct prostration of the system without reaction. A large loss of blood at the moment of injury tends invariably to this result ; that is, it cuts off the stage of excitement." 78.

The effects of mental perturbation, as co-operating with bodily disease, have been already alluded to, and more examples, in illustration, are here introduced by Mr. Travers. We shall glance at one or two. An elderly and somewhat corpulent lady was, with difficulty, prevailed upon to have a tu-

mour removed from her breast. There was nothing, however, in the operation to create alarm in the friends or the medical attendants. Yet it was succeeded by continued and unvaried prostration of strength and spirits, with a quick and very indistinct pulse, restlessness, and an extreme irritability of the stomach, which rejected both food and medicine. Low delirium and stupor came on, and she soon died. The lips of the wound were slightly adherent, but on separating them, its cavity was filled with sanies. The following graphic sketch is closely copied from Nature.

“ Every medical man of observation admits and appreciates the influence of the mind in disease, and how much his prognosis is influenced by this consideration. The variety evinced in the dispositions of different individuals in similar circumstances is remarkable. Some patients are mindful of the smallest attention, and grateful for it; obedient, hopeful; always looking forward to recovery, long and cheerless as is the journey; ever lightening the burthen to themselves and those about them, by a blessed spirit of contentment. Others, on the contrary, lie ruminating on the mischance; sullenly calculating the cost, if all proceed well; cast down by every adverse circumstance, and always anticipating worse; ever slow to acknowledge improvement, and selfishly regardless alike of the feelings they excite and the attention they receive. These though not imaginary, I grant, are extreme cases; there are however many intermediate shades. Such differences as these are not wholly to be attributed to moral causes, neither are their effects limited to the moral constitution; they have, on the contrary, a marked influence on the functions of life and the powers of recovery.” 81.

Two interesting instances of the influence of previous insanity are adduced by our author, of which we shall sketch the particulars.

A man jumped, in an affray, from a window eight feet high, and sprained both ancles severely. Next morning he was brought to the hospital suffering much from the accident. Bowels freely opened, and an evaporating lotion applied. He was a little better. But in the middle of the ensuing night he was seized with vehement delirium, attended with quick hard pulse. He was freely bled and purged, and became tranquil. In the evening the pulse rose to 140, with fierce delirium. Temporal arteriotomy with a large blister—mercurial and saline purgatives, &c. The delirium continued with unabated violence, and on the following evening he died, 72 hours after the accident. It was ascertained, upon inquiry, that this man had been the subject of temporary insanity, and had been more than once confined in a lunatic asylum. On inspection of the body, a slight serous effusion was observed between the dura

mater and tunica arachnoidea, but no other morbid appearance in either of the visceral cavities, except the chronic change so often seen in the liver of a spirit drinker.

The following case was communicated by Mr. Soden, a gentleman in extensive practice in Bath.

“ A young man, nineteen years of age, who had formerly been maniacal and confined in a lunatic asylum, was admitted into our infirmary with stone in the bladder. I operated upon him. The calculus was large, weighing eight ounces, and consequently required a free incision, but the extraction was effected with much less difficulty or violence than the magnitude of the stone led me to expect. Shortly after the patient was in bed he became very animated, and said he should soon be well now that the stone was removed. The animation increased, so that in two hours after the operation he could with difficulty be prevented from getting up. In five or six hours he was in such a state of mania that it was necessary to use the strait waistcoat. The maniacal symptoms continued till death took place, about forty-five hours after the performance of the operation. On opening the body I found the bladder thickened, but all the parts connected with the operation free from inflammation and in a favorable state. The brain could not be examined. In this case it is probable that the man's apprehension about the operation, the operation itself, and his joy at its conclusion, acted upon an organ which was predisposed to disease, and were the exciting causes of the fatal paroxysm.” 85.

In the next section, our author introduces some cases of severe burns, as exemplifying the symptoms of direct irritation in their most aggravated forms. These kinds of cases are so familiar that we need not stop to detail any of them, but pass on to the remarks which our author makes on them.

He thinks it may be inferred, from the history of severe burns, that the first three days include a period of imminent danger. When this period is passed, reaction may be considered as established, and, generally speaking, the injury has nothing more of a peculiar character. Infants, however, are sometimes suddenly attacked and carried off in convulsions, as late as the fifth day after re-action is fully established. This is a rare case. Aged or infirm persons may fall victims to sphacelus a week or ten days subsequent to the injury.

“ It is remarkable to how late a period the faculties of the mind are preserved, although somewhat benumbed, so that to rouse them a strong external impression is often required. A patient in a case of fatal burn, after the first expressions of anguish have subsided, nearly resembles a person stunned by a fall, or as much as possible stupefied with liquor, without suffering an actual suspension of his senses. Inspection demonstrates fullness of the veins of the brain and its membranes, and effusion beneath the arachnoid membrane, confirming the symptoms which occur

in the latter stage. But these appearances are too slight, and too frequently seen in the bodies of persons who die rapidly, to be much dwelt upon. The proximate cause of death appears to me to be a species of concussion, functional, not organic, by which the brain is deprived of its influence over the organ of circulation; for the symptoms of cerebral disorder are first manifested; secondly, a diminution of the power of the heart; thirdly, the respiratory function becomes impeded, as a necessary consequence of the two first." 108.

EXAMPLES OF FRACTURES, CONTUSIONS, &c.

Case 1. In the evening of July 2, 1819, our author was called to a fine lad of 13 years of age, who had received the charge of a musket (slugs) in his thigh. The charge entered about two inches from the trochanter major, and passed obliquely across the limb. The comminution of the bone was evident—no external hæmorrhage—the pulse could not be felt—countenance pallid—surface cold—pupils fully dilated. Yet he was perfectly rational when roused, but strongly disposed to stupor. Made no complaint of pain, but was troubled with insatiable thirst. He died without any alteration in the course of nine hours. On examination, it was found that the hip-joint was uninjured. The trochanter and upper part of the femur were shattered to fragments, and the surrounding muscles extensively lacerated, the artery being torn across. The effusion of blood was inconsiderable. The contents of the head, chest, and abdomen were perfectly natural.

Case 2. The wheel of a waggon went over the left leg and right thigh of the waggoner, at a village near London. Both bones of the left leg were fractured a little above the ankle joint, and the femur was broken transversely below the trochanter. The pulse was scarcely perceptible, and soon failed altogether—extremities were cold—lay in a state of stupor except when roused. He died within eight hours from the accident.

Case 3. From Mr. Green.

"A man fell from the roof of a coach, and in the fall suffered a compound fracture of the leg. He was replaced on the coach, and brought to London, a distance of forty miles. On his arrival at the Hospital, he appeared as if intoxicated, but recovered from this state in the course of a few hours. On the third day, without any considerable previous inflammation, the leg began to assume a gangrenous appearance. On the fourth day he became insensible; his breathing stertorous, and the pupils of his eyes dilated. The symptoms so much resembled apo-

plexy, that it was supposed some effusion of blood had actually taken place in the brain. The same night, he died, and on examination no morbid appearance whatever was found in the brain or other viscera.' 112.

Case 4. We are tempted to give the particulars of one more case of this description of injuries. It was communicated to our author by Mr. Soden of Bath.

A young girl, 18 years of age, fractured her leg by jumping off a wall, at 1 o'clock in the day. The fracture was simple, and reduced by Mr. Hill, an hour after the accident. She was conveyed home (a distance of three miles) in a boat—making no complaint, and her pulse only seventy-two. At midnight she became restless, and kept tossing her arms and legs about—her face was flushed, skin hot, and breathing laborious. In the morning she was found in a state of coma, with quick feeble pulse, stertorous breathing, contracted pupils, cold skin, &c. The parts about the fracture were slightly swelled and bruised, but presented no appearance which could at all explain the formidable symptoms that had taken place. No injury could be detected about the head. She expired 31 hours after the accident. The vessels of the brain were turgid with blood, but no extravasation or other morbid appearance could be discovered.

The foregoing cases are quite sufficient to illustrate the dreadful effects which sometimes follow accidents, and we shall now introduce one or two instances of similar direct irritation succeeding operations.

Case 1. A stout lad, 15 years of age, had his wrist and hand literally smashed to pieces by a carding machine. There was little or no hæmorrhage, and he bore the amputation without complaint. He passed a quiet night, and at one o'clock next day had three copious green evacuations, after which he complained of nausea, rejected all diluents, and had a very quick and not very distinct pulse. Complains only of thirst and sickness. In the evening all the bad symptoms were exasperated. On the third day, no favourable change—extreme anxiety—cold clammy surface—livid countenance—purple extremities—laborious respiration. Wine and brandy were given, but he sunk, forty-eight hours after the operation.

The body was examined with the greatest care, but no morbid appearance could be discovered any where, except a slight erythematous blush on the villous coat of the stomach—an effect most probably of the vomiting which had occurred before death.

Case 2. (Communicated by Mr. Brodie) A patrole, aged 50, was admitted into St. George's Hospital, at 1 o'clock on the morning of February 5th, having received the contents of one of his own pistols in the upper part of the thigh. There was an extensive lacerated wound of the skin and muscles where the slugs had passed out. The trunk of the femoral artery escaped. He complained of little pain at first, but in half an hour it became excruciating—pulse regular, full, and strong, at 88. Nothing but amputation at the hip-joint presented any chance of salvation, and Mr. Brodie immediately proceeded to the operation. The amputation was accomplished without much difficulty, the artery having been previously secured under the crural arch. After the operation the patient was very faint, and the pulse 144, weak and irregular. He became sick and vomited, but complained very little of pain in the stump. The stomach would not retain any thing. The pulse got up to 161. An enema with 40 drops of laudanum was prescribed. Low delirium came on, and he was carried off in a convulsion 20 hours after the operation.

Remarks. The predominant symptom in which these cases coincided, is characteristic of the most intense degree of shock, viz. the early and unappeasable irritability of the stomach.

OPERATIONS FOR CHRONIC DISEASE.

Mr. Travers confines his observations, under this head, to some remarkable cases of lithotomy in children, proving fatal by direct irritation. We shall, as usual, condense some of the most remarkable instances, for the benefit of those who cannot have access to the original work.

Case 1. A child three years of age, was operated on for stone in St. Thomas' Hospital. The operation was admirably performed, and did not exceed *one minute* by the watch. The little patient had a slight shiver after being put to bed, and the temperature of the body did not recover. He was inclined to doze—became slightly convulsed, and died at 2 o'clock the following morning.

The same day a boy, five years of age, was operated on by the same gentleman, and though the operation lasted longer, the little patient recovered without a bad symptom.

Case 2, 3, 4. A child aged 3 years, underwent the operation under favourable circumstances. In an hour he was chilled—

a stupor came on, and he gradually sunk, and died the same night. About the same time a lad of sixteen years was operated on in the same hospital—and the symptoms above described came on and carried off the youth on the same evening.

In none of these cases was the calculus very large, nor had hæmorrhage to any amount succeeded the operation. So many unfavourable results, in a short time, led to minute inquiries respecting the previous habits and diet of the patients—and the conclusions formed from the information thus obtained, led to the treatment so successfully adopted in the following case.

Case 5. “A child, six years old, became restless within an hour after the operation, which had been in all respects favorable. Between five and six o'clock, the operation having been done at noon, he was cold, faint, without a pulse at the wrist, and apparently dying. In this state, gin and æther diluted with barley water were got into the stomach, and repeated at intervals, until the pulse acquired a steady beat, and the surface its natural warmth. Its effect was immediate, and as salutary as could be desired. In diminished quantities the cordial was occasionally administered during his convalescence, which was from this time uninterrupted.” 137.

It was, in fact, ascertained that the parents of these children had been in the habit of giving them gin to allay the severity of the paroxysm in micturition. The same treatment has been since resorted to in cases where similar symptoms had presented themselves. The following case illustrative of this principle was communicated to Mr. Young, and as it is short, we shall give it in his own words.

“ ‘A livery-stable keeper in Moor Fields fell with his horse and broke his leg; I saw him soon after the accident; yet he was calm and self-possessed, and took a part in directing those who removed him to his bed, and who afterwards assisted me in placing his limb properly. On the following morning, I was informed that he had taken little or no notice of any thing; that he had refused whatever was offered to him, and that he had not moved, but lain as if in sleep, as I then saw him; breathing very gently, with a pale, cold surface; a thready and rather quick pulse. I could rouse him by speaking firmly; he answered rationally, put out his tongue, said he had no sort of pain in the limb, which was cool, and not in the least swollen. I urged the necessity of his taking nourishment, and, as he preferred porter, I gave him by spoonfuls, a pint, and directed that he should take beer caudle freely. He gradually recovered, but several days passed before he felt quite restored, or complained of pain, or that any swelling was perceivable in the broken leg.

“ ‘Precisely the same train of symptoms, ending however in the gradual extinction of life, followed the removal of a large fatty tumor

from the fore part of the thigh of a middle-aged woman. The operation was quickly over, and had been borne with exemplary self-possession." 139.

In the preceding and other cases, the youth of the patients, the debility induced by previous suffering, the influence of terror or of pain, the inevitable loss of blood, and, in some, the privation of an habitual stimulus, when really needed, may have been one or all accessory to these untoward results. When a degree of vacancy and stupor comes over a child shortly after being replaced in bed, and the countenance and general surface assume the paleness and coldness of death—the pulse being small, rapid, and indistinct, the patient becomes, in a few hours, comatose, and in that condition sinks. This is the extreme state of prostration from shock. There is a close analogy of symptoms between this condition of children and of the subjects of severe burns and complicated injuries. In two of the cases related by Mr. Travers, the patients died in convulsions. The unavoidable effusion of blood in operations, though insufficient to create alarm for the patient's safety on that score, obviously predisposes to the convulsions of children.

“The phenomenon of convulsions is invariably coupled with the state of cerebral irritation. This irritation may have been propagated to the brain from any suffering organ, as from a wounded muscle or nerve; from worms, or sordes in the primæ viæ, suppressed catamenia, or tension of the gums in dentition; or it may arise from the pressure of bony spiculæ on the brain; lesions, vascular congestion, or effusion in that organ. In either case, convulsions are symptomatic of disturbance, amounting to an interruption or temporary suspension of the cerebral influence, whatever that may be.

“We see these spasms arise in apparently opposite states of the system—in the plethoric and the ex-sanguine—in the robust and the debilitated—in congestion and in effusion—in acute inflammation and in destructive ulceration.

“Severe local irritation will occasion vascular congestion, and ultimately effusion in the brain, and hence gives rise to convulsions.

“Inflammation, being a frequent cause of local irritation, also operates to produce convulsions. When the irritating cause is in its nature such as to admit of removal, the convulsions cease upon its removal. Thus I have seen them cease after removing a spiculum of bone by the operation of the trephine; also after the discharge of confined matter; by blood-letting in parturient women; by the same and the operation of purgatives in recent acute inflammation, as in hydrocephalus, prior to effusion. The tendency of a local irritant to produce convulsions is augmented by any sudden depression of power, as for example by shock, by hæmorrhage. When the system is thus exhausted, convulsions are often abrupt in their appearance, and overwhelming in

their effect, as in the cases last related. This occurs most frequently in infants, and is chiefly owing to the powerless and unresisting condition of the body; for the irritation acting singly, i. e. unaccompanied by such depression, gives a more permanent character to the convulsions.

“ In short, there is an active and a passive form of convulsions, and to the proper treatment of the disease upon which they are symptomatic attendants, the understanding of this distinction is of the last importance. In one case we look for relief to cordials and tonics, in another to venesection and purgatives.

“ In the commencement of inflammatory diseases, whether affecting the brain or other organs, convulsions, if present, are of the sthenic kind, and subside by the free use of the lancet; but if this treatment be pushed too far, or the inflammation should terminate in effusion or disorganization, the powers of life yield, and they become asthenic or passive, i. e. symptomatic of exhaustion. Such are the convulsions which appear after hemorrhage or any other rapid depression of the system, and in the last stage of acute diseases. The smallest direct reduction of strength will, in such cases, extinguish life. It can only be maintained by the timely administration of such aliment and medicine as support without exciting, and therefore tranquillize the system.” 144.

It is with this form of convulsions that we have to do in most cases of prostration following injuries and operations; but not in all.

INFLAMMATION SUCCEEDING INJURIES AND OPERATIONS.

Mr. Travers next proceeds to exemplify the phenomena of *direct irritation* arising from the inflammation that ensues on injuries and operations, by a detail of cases. Some of these we must necessarily analyze, in order to keep up the connexion of the subject.

Case 1. A man, aged 40, was admitted into Guy's Hospital, January 1st, for a superficial collection of matter in the palm, with a severe inflammatory œdema of the whole hand and fore-arm. It had been caused by a bruise with a hook five days previously. The abscess was freely opened, and two ounces of sanious matter discharged. He was in a state of severe irritation, as indicated by his countenance and manner. His eyes looked glassy—pupils contracted—pulse small and quick—tongue much furred. In the night all these symptoms were aggravated—delirium came on, and next day (seventh from the injury) he died, the whole arm being in a state of gangrene.

Case 2. A woman, aged 66 years, pricked her thumb, while washing with pearl-ash, in November. The next day the finger became much swelled and painful, which, on the third, extended to the hand and wrist, the inflammation spreading alarmingly upon the fore-arm. The pain was excruciating, and the constitutional disorder extreme. The pulse was small, quick, and jerking—tongue dry and foul—oppression of the præcordia—total failure of appetite—thirst—great restlessness and anxiety.

“ After repeated and copious leech-bleedings, continual fomentations, free purging with calomel, and the exhibition of antimonial opiates, the swelling and redness subsided, and the inflammation was arrested in its course, midway between the shoulder and elbow, on the eighth day from the accident. But the hand now assumed a livid cast; large phlyctenous vesications appeared, both on the palm and dorsum; the pulse was very small and feeble; the tongue covered with a dry and dark crust; she was exceedingly depressed, and refused both wine and nourishment. In the evening and during the following night, she was violently delirious, and with difficulty kept in bed; in the morning she appeared exhausted; stupor succeeded, and she died in that state on the ninth day from the injury, at one p. m. the hand and arm presenting a state of sphacelus.” 148.

Case 3. Laurisson, aged 17, a healthy lad, received a severe wound from a piece of timber on the 29th November. On being received into Guy's Hospital, it was found that the integuments in front of the knee-joint were lacerated, so as to expose the insertions of the vasti and rectus muscles. There was also an aperture in the hollow of the ham, into which the little finger might be admitted. There was little hæmorrhage and no escape of synovia, so that the joint was considered safe. The edges of the wound were brought together, and the limb placed in a relaxed posture. In the evening he complained of cold and numbness in the injured limb—his whole system seemed much depressed—and he was very drowsy—pulse 120, and small. Camphor julep, liq. ammon. acetat. and laudanum, every four hours. Next day, much tension in the knee and calf of the leg—knee poulticed. Symptoms of irritation are increasing. Third morning, the constitution is strongly sympathising, and great general debility is present—leg cold, clammy, and senseless, on the verge of gangrene. On the 5th day, at noon, he died.

On examination, neither the popliteal artery nor nerve, nor any principal branch appeared to have been wounded. The popliteus muscle was torn across, and a small orifice was discovered in the capsule of the joint, behind the external lateral

ligament. The synovial membrane lining the external half of the joint was highly inflamed. Much blood was extravasated among the muscles in the neighbourhood of the joint.

The following observations are so judicious and important that we shall give them in the words of the author.

“ These cases exemplify the rapid and fatal termination of acute inflammation of the *tela cellulosa*, consequent upon slight wounds, in extraordinary constitutional irritation. This is by no means, however, a legitimate consequence of the mischief inflicted. When such cases have been permitted by the patient's neglect, or slight appreciation of an injury apparently trifling, to reach a certain point, the efforts of art are often ineffectual to preserve life. The patient in this class of life seldom applies for proper assistance until, to use his own phrase, he “ feels ill all over.” Then we find him labouring under the established symptoms of constitutional irritation. A contracted and quick pulse, foul and encrusted tongue, rigors and flushes, great anxiety, bewildered expression, constant vigilance, diffused pain, &c. Then follow increased rapidity and intermission of the pulse, cold clammy surface, hiccup, *subsultus*, muttering, or paroxysms of frenzy, stupor, and death.

“ This is a description of case which happens yet more frequently in the lower limbs. An old leg ulcer—a slight recent injury, as an abraded instep, ankle, or shin—a diseased toe-nail, an inflamed corn, or ganglion, irritated to acute diffused inflammation of the cellular membrane of the limb, gives origin to a constitutional state over which medicine has little control. Unquestionably the susceptibility to such a state is greater in the aged, the dram-drinker, the man of broken constitution; but in these the aggravation is less because the constitution sooner takes alarm. The robust and healthy, relying on the soundness of constitution, quickly reach the same perilous crisis by braving the evil. ‘ This ought not to have been,’ is the instant impression which the sight of the case conveys. This the patient always feels, and often expresses; but to look back is as little consolatory as the prospect. I have known eminent practitioners prescribe calomel and jalap every six hours, within two days of the patient's decease, in the belief that so vitiated a condition of the visceral secretions as of course and consequence exists, is yet the gravamen of the mischief. At the same time wine and strong nourishment have been proscribed. This is the ultraism of faith in certain doctrines unimpugnable when unabused, but capable, like every thing excellent, of being injured by a blind devotedness. The most important practical indications which these cases convey are, 1st. early and free venesection to the relief of pain; 2nd. early and free openings of abscesses. If these are overlooked, the effective aid of medicine is questionable; if they are fulfilled, it is capable of affording most essential benefit, both in the stage of excitement and collapse.”—158.

The common error, Mr. Travers observes, is reliance on local blood-letting till general blood-letting is inadmissible.

“ Under a prudent restriction, pain may be taken for a director to the use of the lancet, even in incipient gangrene.” It is not the process of mortification, our author remarks, which destroys in these cases ;—but the irritation of the nervous system by the inflammation, and the acutely-agonizing pain which accompanies it. When the powers of life are well nigh exhausted, the texture of the part becomes broken up by the disease, and the phenomena of gangrene are presented. This is an effect, not a cause, of the constitutional malady.

“ The general impression which the appearance of gangrene on the eve of dissolution has given, is erroneous. The part is disorganized, and no longer retains the principle of resistance to decomposition, but the mischief is done before the discoloration and bloody vesicles appear ; nay, it as often happens before the part has so lost its organization as to part with its vitality. How many instances do we see in which with very moderate constitutional disturbance, gangrene passes on to sphacelus, and limbs are separated, to use Mr. Hunter’s phrase, by ‘ the natural surgeon.’ But the power required for the process of separation depends upon a less disturbed state of the system, a state comparatively tranquil, and opposed, in all respects, to that of direct irritation.” 159.

Case 4. Anne Pearson, aged 36, was admitted into St. Thomas’s Hospital for a tumour on the inner side of the tibia, near its lower extremity. The enlargement of this tumour had been marked by lancinating pains, and it had a knotty and uneven surface, discoloured by a number of superficial vessels contorted and diffused thereon. There was no apparent distention of the larger veins. It was four inches in length and three in breadth. Pressure was tried, but without success, and on Friday, the 27th July, the tumour was cut out. So strong and intimate were its adhesions to the skin that it could scarcely be separated therefrom ; while its attachments to the subjacent strong fascia near the bone, covering the muscles of the leg, was but slight, and easily broken through. The substance of the tumour was of a fatty nature, connected by numerous vessels. Next day, there was symptomatic fever, with an inflammatory redness extending up the leg and thigh, along the absorbents. Pulse 110. On the fourth day the inflammation had extended as high as the groin, and the inguinal glands were enlarged. No disposition in the wound to heal—no appetite—tongue much furred—leg and thigh leeches and fomented. Three grains of calomel and ten of rhubarb every six hours. *Fifth day,* The inflammation has subsided a good deal—less nausea and sickness—skin hot and dry—tongue cleaner. Four or five motions from the rhubarb and calomel. This state of amelioration continued for the succeeding day,

but on the seventh day, she complained of violent pains in her right arm and down the right side and leg. A patch of redness appeared on the arm, which became diffused in the night. *Eighth day*, The redness changed to black, with delirium and incessant talking, great thirst, &c. She died in the night. The only morbid appearance that could be discovered, upon careful inspection of the body, was a chronic and firm adhesion between the costal and pulmonary pleuræ, in both sides of the chest.

Case 5. A young man, a baker, a sober healthy man, underwent amputation of the ring finger, at the metacarpal bone, in consequence of its having become stiff by a chronic inflammation from injury. The integuments were, at the time, in an unfavourable state—adhesion did not take place—and the wound turned sloughy. Some secondary hæmorrhage also took place. Although the loss of blood was not considerable, the man was evidently rendered irritable by it, and the appearance of the wound was altered for the worse. No serious constitutional disturbance, however, occurred till the eleventh day, when he experienced a severe rigor, and then became feverish and irritable. Calomel and antimony every six hours. From this time the symptoms gradually got worse, and he died on the 16th day from the operation.

This and a few other events of a similar kind are calculated to excite alarm in the mind of the surgeon, when about to remove a sound finger or toe. Sir Astley Cooper, however, whose experience is so extensive, informs us that he entertains no apprehension on this point, as he has met with no unfavourable termination of this description for many years. Immediately succeeding the case above detailed by Mr. Travers, is another, where a young man had a toe removed in consequence of a caries, with a fistulous opening, which had resisted every means of treatment. The operation was followed by pain in the wound and a restless night. Some unpleasant symptoms which followed were relieved, and he became convalescent; but cough came on, the appetite failed, disturbance of the mental functions succeeded, and he died hectic, within a month from the operation. On examination, extensive adhesions were found on both sides of the chest—the substance of the lungs sound—some effusion between the membranes of the brain—and a large collection of pus was discovered beneath the flexor tendons in the sole of the foot, a circumstance that was not at all suspected during life.

HÆMORRHAGE AND COLLIQUATIVE SUPPURATION.

The state of direct irritation is often produced, as every practitioner knows, by exhaustion from *loss of blood*, concomitant with, or consequent on, injury—and also by what our author calls colliquative suppuration.

“ A hæmorrhage which does not prove directly fatal, as from a wounded artery, sometimes leaves the patient in a state of exhaustion so great that he is incapable of sustaining the shock of an operation. In lacerated, especially gun-shot wounds, complicated with fracture, a person is occasionally reduced to such extremity of weakness by loss of blood, that it becomes a question very difficult to decide, whether he will survive the removal of the injured part, if that measure be necessary.” 183.

A man was sent to Mr. Travers from the country, a distance of ten miles, with a shattered arm, occasioned by the bursting of a gun. A tourniquet had been placed on the limb, which the man's wife had, by mistake, relaxed on the road, and thereby produced a large flow of blood. He was brought to the hospital in a state of exhaustion. Two hours were suffered to elapse before the operation (which was indispensable) in order to ascertain his condition. His pulse was now 60 in the minute, neither thready nor intermitting—faculties clear—limbs warm—complexion improved. In the operation (above the elbow) scarcely an ounce of blood was lost, and he preserved great equanimity of mind till the limb was removed, when he fainted, but soon recovered. Although closely watched, and well plied with cordials, the faintings returned at intervals, and he expired on the evening of the following day.

A great loss of blood during or subsequent to an operation, is often attended with serious consequences of another kind. It so prostrates the vital powers as to expose the parts to imminent hazard of erysipelas and gangrene.

“ I have known a case of the excision of hemorrhoids, from which a considerable quantity of blood had been for some time previous discharged at the daily stool, terminate in erysipelatous inflammation of the mucous membrane of the rectum, which in a few days destroyed the patient. A similar result where the patient has been much debilitated, has been known to follow the operation of tying a portion of the gut in prolapsus ani; and in one remarkable instance a copious secretion of pus was found upon the interior membrane of the bowel, and also in the hemorrhoidal veins; but this patient was, at the time of the operation, the subject of scrofulous tubercles in the liver.

“ When the system has been rendered irritable, but is recovering, either from hæmorrhage, or from an injury or inflammation unattended

by hemorrhage, a secondary bleeding, even though it be inconsiderable, often extinguishes life. This is the case in wounded arteries which have been unadvisedly trusted to the compress and bandage; and in deep suppurations, where a vein is opened by ulceration. I have seen persons really recovering from severe injuries, thus suddenly carried off. The symptoms in these cases are those of sinking, or pure prostration.

“ The loss of blood by injury, when insufficient to destroy life by syncope, induces that state of the arterial system which prevails in gangrene; in other words it converts healthy inflammatory, or sympathetic fever into the asthenic excitement which accompanies prostration: and the inflammation of healing (granulation) into that of destruction (sloughing). Debility is the basis of morbid irritation, and those causes of debility which operate with the greatest force and directness, most invariably aggravate the state of irritation.

“ These I call examples of death by irritation assuming the character of prostration, because, however the cause by which direct debility is induced may differ from that which operates in shock, where little or no blood escapes, the symptoms bear a close resemblance, and are equally to be referred to a great and sudden reduction of power with a local irritant. The loss of blood is not fatal in cases in which the circulation, although feeble in the extreme, recovers and maintains its regularity, and no excitement remains, as in uterine flooding after delivery; but where an extra burthen lies, or is imposed, upon the system, whether the unrelieved uterus, the unrecovered shock, the mutilated limb, or the removal of it, the vital powers succumb. It is very questionable whether the administration of stimulants is not more frequently injurious in these circumstances than beneficial. Excitement to increased action where the power is so much reduced as to be scarce able to maintain that which is necessary to life, only the more rapidly exhausts it. Hence it has been a good turn of fortune for many persons to have been left for dead, as it is called, on the field of battle. Sleep will restore where alcohol destroys. And whether life thus reduced in power can be maintained artificially in any case, i. e. where the patient being left to himself, the relief of natural sleep comes not to his aid, or comes in such a shape as not to refresh, may well be doubted. I am sure I have seen cases in which the remnant has been more quickly consumed by the incessant appliance of stimulus, than would have been the case had nature been left to her own economy. On the other hand, it must be admitted, in cases of such extreme prostration as is indicated by the entire relaxation of the sphincters, that the very sparing, but frequent supply of a nutrient liquid, a tea-spoonful at a time, or of a stimulus so diluted as not sensibly to swell the pulse, has sometimes succeeded in preserving the life ‘ of him that was ready to perish.’ ” 188.

Excessive Suppuration. This will so sink the vital powers as to induce a state of direct constitutional irritation in an extreme degree. Three cases are introduced by Mr. Travers in

exemplification of the effects of colliquative suppuration. Of these we do not deem it necessary to quote more than one, being a rare case of profuse and exhausting suppuration, directly supervening upon the amputation of a crushed limb, where the prostration obviously occasioned by it, and progressively increasing, terminated in the death of the patient on the eleventh day.

Case. "Izzard, a drayman, aged forty-two, fell from the shaft of his dray, and one wheel passing over his right leg produced a comminuted fracture, with incurable laceration of the soft parts. The injury was attended by a free hemorrhage. Amputation was performed immediately above the knee; no symptom of extraordinary irritation ensued, but a considerable swelling of the thigh was noticed two days after the amputation. On the third it was opened, and a profuse and fetid discharge issued from it. On the fifth day, the swelling had so much increased as to make the thigh appear half as large again as the other. The surface was tense, and covered with a blush of inflammation. The integument on the face of the stump, which was abundant, was loose, flaccid, and discolored; no adhesive process had been set up; the divided muscles had a ragged and sloughy appearance; the discharge was thin and of a bad color, and excessive in quantity. The man made little or no complaint, but his pulse was very quick, weak, and compressible. Warm spirituous fomentations were applied to the limb; he was ordered bark and opium, and a quart of porter per diem. His bowels had been kept regular from the first with Epsom salts in mint julep occasionally. From this time to his dissolution the man's symptoms were simply those of great and daily increasing debility. He passed much of his time in sleep, which was disturbed by starting and was unrefreshing. The discharge continued profuse, and of nearly the same quality, although the blush upon the skin had disappeared, and the size and tension of the limb were much reduced, so that the skin had collapsed and the swelling did not extend to the groin. He always drank his porter with relish, and even asked for rabbit for his dinner the day before his death. This event, which was preceded by the ordinary signs of exhaustion, took place on the eleventh day from the accident." 198.

We have now brought our analysis forward to the important subject of POISONS—chiefly animal—or in other words, the effects of *dissection wounds*, which subject occupies nearly two hundred pages of the volume, and will supply ample materials for our next article. In a third, we hope to complete our view of this important work, which becomes much more interesting as we proceed. It will be seen that, as far as we have yet gone, the work consists principally of cases in illustration—and of these we have endeavoured to present our readers with a very full view. It will probably have occurred to the

reader, that the arrangement which Mr. Travers has adopted, has not been very conducive to that "lucidus ordo" which is the object of all arrangements. But we are ready to grant that it would have been exceedingly difficult, on any plan, to avoid the appearance of tautology in the elucidation of irritation as arising from various sources, and in various ways from the same source. On this account we are not inclined to cavil at trifles, when so much important matter is brought before us from the most authentic records—those of a public hospital. But the time for general comments will be at the close of our analysis; and till then we part from our able and intelligent author with feelings of great respect and esteem.

VIII.

Novum Organum Medicorum; A New Medical Logic, or the Art of Thinking and Right Reasoning applied to Practical Medicine; exhibiting the Principles advanced in a larger Work under the same Title. By VINZENZO LANZA, M.D. Professor of Clinical Medicine in the Ospedale della Pace, at Naples. Translated from the Italian; By C. STORMONT, M.D. London; Samuel Highley, 174, Fleet Street, and Webb Street, St. Thomas's Hospital, 1826. Pp. 284.

[First Article.]

THE volume before us, is a translation of the principal part of a work, the object of which is to shew, that the science of medicine may be successfully cultivated upon the principles of induction recommended by Lord Bacon, and to exemplify the application of that method of investigation, by a minute and logical analysis of all the facts which can fall under the cognizance of a physician, in the examination of all the physiological and pathological actions and alterations, to which the human body is liable, whether they be constitutional or local, and whether they be produced by diseases or remedies. The translation is divided into two books, in the first of which are discussed, "the logical rules which it is necessary to observe, in order that the nature of diseases, and the choice of remedies may be clearly discovered, without danger of mistake." In this book, which is divided into fifteen short chapters, the author treats of experience and induction as affording, when duly combined, the only means whereby the physician can accomplish

the object of his art, the cure of diseases. He gives a brief explanation of what he modestly calls, his "hypothesis," respecting the nature of diseases and the operation of remedies.

"Experience," says the author, "affords to the physician five grounds only for his reasoning, and these are the following: first, the exact investigation of the external causes which have produced the disease; secondly, the complete description of the phenomena of the disease itself, not less than of the idiosyncrasy of the patient; thirdly, the impartial observation of the things usually recognized as agreeable or hurtful to the patient, especially those of the non-naturals; fourthly, the result, happy or otherwise, of the cure; fifthly, the analogy, rightly instituted, between the various species of the disease itself, and between diseases similar or opposed to each other." 2.

The induction, again, which the physician employs in reasoning upon the facts derived from these sources, the author divides into two kinds, the one he calls clinical or practical, and the other theoretical or hypothetical. The former is nothing more than common reason applied to the facts for the purpose of ascertaining the true relations existing between them, and the consequences deducible from their union. Hypothetical induction, on the other hand, is described as a species of reasoning founded upon preconceived ideas of the essence of life, health and disease, and applied to any particular malady, in order to explain its nature and the operation of remedies. All reasoning upon such grounds must of necessity be hypothetical, since we can have no ideas of that nature, except what are derived from hypothesis.

The former species of reasoning is always the safest guide in practice, whether to enable us to form a correct prognosis, or to treat a disease with success and confidence. In proportion as the obscurity of the facts in any case of disease compels us to rely upon hypothetical, rather than upon clinical induction, must be the uncertainty of the prognosis and of the result of the treatment employed.

In introducing to his readers his own ideas of the "Theory of Diseases," our author remarks that those physicians who despise or neglect this distinction, and confidently rely upon hypothetical reasoning as all-sufficient in directing the practice of physic, or who employ it even in preference to practical induction, are justly censured as physicians of system, of the chair, of the pen, and as bad practitioners. To avoid this imputation, the author proposes to make use of hypothesis only where it is rendered indispensable by the absence of clear facts for the foundation of clinical induction, conceiving it to be his duty simply to explain his own theory without being over-

anxious whether others should think differently upon the subject.

The *vital force*, is a term whereby the author expresses merely the abstract idea of that incomprehensible thing which inhabits the living machine, and there, by its physical operations, makes it such as it is while life endures. When this force operates in the most perfect manner health is enjoyed, which is that kind of life in which living beings delight, because they can discharge all the functions essential to the full enjoyment of life. When, on the contrary, the vital force operates unduly, or in a mode different from that of health, disease is the result, which is a state of life irksome to the living being, because it suffers from the non-performance or undue performance, of its usual and necessary functions. By this distinction, according to our author, all diseases are divided hypothetically, into two great classes, viz. those of grade, which consist of a simple change of the degree or impetus of the vital force; and those of mode, which depend upon a change of the mode, as well as of the degree of the vital force.

In diseases of the former class, that is, of grade, life continues obedient to the same laws, and in the same manner as in health, differing only in the degree or impetus of the vital force. The vital force may suffer three variations of degree. It may suffer greater or less excitement than ordinary. Persons when intoxicated, over-heated, or excited by exercise, afford examples of the former, and such diseases are termed *hyperstenic*. Exhaustion from hunger, cold, or fatigue, again, afford examples of diseases from defect of excitement, which our author terms *hypostenic*. The third variety of diseases of grade depend less upon excess or defect of excitement, than upon disturbances of the vital force. A thorn wounding a nervous filament, caustic acting upon the skin, a tooth in the act of cleaving the gum, worms in the bowels, indigestible substances in the stomach, the fœtus wedged in the passage, the placenta retained in the uterus, and humours stagnating or extravasated, produce an irregular commotion in the excitement of the vital force, which is called irritation, and diseases of this kind are denominated *irritative*.

Diseases of grade are not numerous, and they are so slight as scarcely to be called diseases, being simple disturbances of health, which are easily restored when the obstacles are removed.

In diseases of mode, on the contrary, life acquires new qualities. Such diseases arise, run their courses and terminate

according to laws in all respects peculiar to their natures: and, whether excitant or debilitant remedies be employed, they are not deprived of their morbid qualities, except by the return of health, or in the event of death. Thus angina, pleurisy, rickets, scrofula, the gout, small pox, schirrus, are not simple deviations from, or disturbances of the healthy vital actions, but possess, each of them, essential and peculiar morbid qualities, since, although some of them may be closely akin to each other, yet there is always in each a distinguishing quality, that prevents their being confounded.

Diseases of mode do not admit of being classed with respect to degree, because diseases of grade, even when they change into diseases of mode, become immediately hyperstenic; as, for example, should torpor from cold terminate in pneumonia, the hypostenic nature of the disease is instantly changed into hyperstenic. Modal diseases are divisible into *diathestic*, or those which leave the body more disposed to them, such as angina tonsillaris; and *adiathestic*, or those which destroy entirely, or greatly diminish the susceptibility or disposition to them, such as small pox or measles.

Many diseases are complicated so as to exhibit the phenomena of hypostenia, hyperstenia, irritation, diathestic modality, and adiathestic modality more or less united in the same individual case, except only that hypostenia and hyperstenia never can be co-existent at the same time in one person. Thus to a patient affected with an endemic intermittent, may be super-added a petechial fever with worms, and he may, at the same time, be extremely weak and emaciated, from the long duration of his complaint. Such a person presents a physiological debility, or hypostenia in the state of his body, symptoms of irritation peculiar to vermination, the phenomena distinctive of the morbid petechial adiathestic modality, and those of the diathestic modality peculiar to the periodical endemic.

Our author divides remedies into four classes, according to their mode of operation, naming them *specifics*, *vivificants*, *solvents*, and *irritants*. With respect to *specifics* he says:

“ We admit that in every agent there is a specific quality, or a particular mode of operation, whence the remedies (even the most analogous between themselves, as opium and wine) differ not less in degree than in mode, so that by increasing or diminishing, in whatever way, the dose of the one, we never come to produce precisely the effect which is proper to the other: but whether it be that they are rare or that we are not acquainted with them, very few indeed are the remedies which can be used as specifics, that is for that particular medicinal quality in them which directly corrects the morbid quality, and, on this account,

the greatest part of remedies come to be used for their power of increasing or diminishing the impetus of the vital force, whence, if they do not remove the disease, yet they diminish its impetus." 10.

Vivificants are those agents which yield life its pabulum, elevate its phenomena, and quicken its force. *Solvents* are those which impoverish life, diminish the vividness of its phenomena and enfeeble its force. This meaning, attached to the Italian word *scioglenti*, is so very different from what usage has conferred upon the kindred English word *solvents*, that the translator appears to have been a good deal embarrassed in finding an English term to convey exactly the ideas comprehended by the Italian word *scioglenti*. He informs us, in the preface, that the author includes blisters, electricity, magnetism, cicuta, hyosciamus, digitalis, laurocerasus, belladonna, and even alum and iron, in the class of *scioglenti*, while he says that opium is classed with wine, among the *vivificanti*. It would hardly have been consistent with propriety, for the translator to use the English term *reductives*, as a name to embrace all the abovementioned medicines. Conceiving the meaning attached to the word *scioglenti*, to be conformable to that of the Latin verb, *solvo*, to solve, loosen or untie the hold which a disease has of the body, or in short to promote the resolution of a disease, the translator has generally employed the words *relaxant* or *relaxants*, instead of *solvent* or *solvents*. We think that *resolvents* would have more nearly conveyed the author's meaning.

With respect to *irritants*, our author observes, that the vital force has a *capacity* for receiving the influence of external agents; that there is a certain point, to the extent of which, every agent operates regularly, as a vivificant, or as a solvent, but that, if given in doses exceeding the natural capacity, it disturbs, irritates and disorders life: so as, instead of proving of benefit, to produce a new disease of irritation, which, whatever may have been the nature of the agent, whether solvent or vivificant, may assume the character of inflammation, congestion, nervous affection, or any other form of disease whatever.

The vital capacity to receive any remedy, or the measure beyond which any agent may prove irritant, depends; 1. Upon the constitution, idiosyncrasy, age, sex, and habits of the patient: for instance, upon an abstemious person, wine acts as an irritant, not as a vivificant, in like manner as vinegar, nitre or antimony act as irritants upon other persons. 2. Upon the specific nature of the disease. Thus an agent, which usually operates "*ordinately*," may be an irritant in certain diseases, or in certain stages of diseases, as water in hydrophobia, and

as the bark occasionally does in ague. 3. Upon the nature of the remedies themselves, it being constantly observed that the most efficacious are the most apt to prove irritant.

Hence the necessity of rules of practice, not only to form correct indications, but to prescribe remedies discreetly and moderately, in order to ensure their "ordinate" operation, whether they be vivificants or solvents, in all except the rare case, in which it is desirable to use irritants: for whatever may be the nature of a remedy, and how much soever it may be indicated, it must, if given in excess, produce the effect of an irritant, exasperate the disease, or occasion new diseases in the same manner as any other remedy, which is counter-indicated, would do.

In conclusion, the author states, that it is not his intention to support his theory in the present work by any attempt at demonstration, except so far as its fitness to assist in forming practical inferences may be shewn incidentally in those parts of the work, where he may find the use of it necessary. That it is consistent with the soundest principles of philosophy he means to prove in a future work on the elements of theoretic medicine. The principal distinctive feature of this theory, as our readers will perceive, consists in the admission of the modality or particular qualities of diseases and of remedial agents. Brown was the author of the hypothetical principles according to which it is imagined, that the vital force can suffer no change, except in degree, and our author points out in the course of this work, numerous instances of the great practical errors into which this erroneous doctrine has led its votaries.

He proceeds in the third and subsequent chapters of the first book to treat of clinical induction, as applied to the investigation of the external causes of diseases; to the phenomena of diseases, and the constitution of the patient; to the discovery of the *juvantia* and *lædientia*; to the result of the treatment; to medical analogy; to the distinction between morbid states and morbid processes: of hypothetical induction as applied to account for the hyperstenical nature of all morbid processes; of the cure of diseases in general; of clinical induction applied particularly to the specific cure of diseases; to the minorative or gradal cure of diseases; to the palliative cure; and to the prophylactic cure of diseases; and, lastly, of the prognosis in general.

The Second Book, which is divided into fourteen chapters, and occupies 223 of the 284 pages composing the volume, is devoted to the consideration of "General Morbid Forms." The author's observations on these are arranged into chapters,

on inflammation, obstruction and congestion; on fever; on resolution and other changes which take place in fever, inflammation, obstruction and congestion; on the cure of fever, inflammation, obstruction, and congestion in general; on nervous complaints; on a bad habit of body; on morbid alterations of the temperature, the excretions and colour of the body; on wounds and the healing process; on commotion or concussion, distension and pressure; on suppuration; on ulcers; on organic blemishes; on gangrene; and on death.

With respect to the causes of diseases, the first of the five sources of facts from which, according to our author, the nature of diseases may be deduced, the Brownonian doctrine regards them as the principal foundation of the physician's judgment. According to this theory—the causes of all diseases must be excitant or debilitant; and, consequently, every disease must be either hyperstenic or hypostenic; and, since pain suffered during disease tends to debility, even hyperstenic diseases must, in process of time, spontaneously become hypostenic. This principle seems, at first sight, so simple and clear as to obtain the fullest confidence from the inexperienced, but has not only not been followed but loudly condemned by practical physicians as leading continually to the most dangerous mistakes. The principal reasons which shew that the contemplation of the external causes is not sufficient to determine the nature of diseases are 1, That the knowledge of the causes depends, for the most part, not on the observation of the physician, but on the information derived from the patient, which is often inexactly given, either because all the causes may not be known to him, or that he may have motives for wishing to conceal some of them. 2, That the external causes of the greater number of diseases are not simple, but of opposite kinds, and may have operated together or alternately, so that it must depend, for the most part, on the will, or on the preconceived hypothesis of the physician, more than on any fixed rule, which shall be adopted in preference. 3, That in the majority of diseases medical science has not yet determined their causes, or their mode of operation.

Our author distinguishes diseases as regards their etiology into those dependent upon the continued operation of their causes, and those that are independent of the causes that excited them. For instance, torpor from cold may be removed by the properly graduated application of heat, or the removal of the cause. Exhaustion from hunger may be remedied by the due administration of food. The irritation occasioned by worms may be removed by their expulsion from the bowels, or

that from teething by freely dividing the gums. In such cases the diseases are dependent on the continued operation of the causes which gave rise to them, and are hyperstenic, hypostenic, or irritative, according to the nature of those causes. But in pneumonia or hepatitis, whether they may have been excited by heat or cold, anger or fear, it is to be observed, that the disease is invariably the same, and, at the same time, that it proceeds in its course independently of the removal of the causes which produced it.

If the knowledge of the nature of the causes of diseases be necessary to determine the nature of those diseases that are dependent thereon, it is equally useful to account for the violence, obstinacy, and danger of those which are independent of their causes, and to this valuable purpose, as our author remarks, "our good ancestors in the science made the etiology principally subservient in such diseases." The greater or less violence of the causes, the greater or less noxiousness of their nature, the longer or shorter time they may have operated, the slow and imperceptible, or rapid and striking manner in which they may have acted, are circumstances affording us essential assistance in the formation of just conclusions as to the probable severity, duration, and results of diseases.

In treating of clinical induction as applied to the phenomena of diseases, our author, after adverting in terms of reprobation to the mischief that has resulted from what he calls the greatest of Brown's errors, namely, his confounding the physiological state of the patient with the pathological nature of the disease, or inferring from the patient's debility that the disease must be hypostenic, distinguishes diseases, as regards their phenomena, into two classes, namely, those of simple and those of double phenomenology.

The former consist simply of an excess, defect or disturbed state of the healthy forces. They are exactly those diseases which were previously described as dependent upon their causes. They exhibit none but physiological phenomena: whereas, a disease of double phenomenology uniformly presents phenomena proper to itself, whatever may be the physiological state of the forces, or of the patient's constitution, for, although the activity of the disease may vary, in some degree, with the variations of the patient's strength, yet it never loses its own essential characteristics, nor does it depend on the debility of the patient, for, even when convalescence has commenced, and the disease has disappeared, the physiological debility is often at the height, and in other cases, such as phthisis, when the physiological forces of the patient are al-

most exhausted, the activity of the pathological actions continues unimpaired. Diseases of double phenomenology are the same as those that were described as independent of their causes. They have one set of symptoms, belonging to the physiological state of the patient, which are variable, and another set, consisting of the phenomena proper to the disease, which are constant, whether the patient be strong or weak.

From these observations, the justice of which cannot be disputed, our author takes occasion to remark, that his hypothesis regarding the nature of diseases derives confirmation, since diseases, which are independent of their causes, and in which the pathological phenomena are always the same, whatever may be the state of the patient's strength, must be new conditions effected by the morbid action of the vital force, and dependent upon a new quality or modality of that force.

In the fifth chapter, on the application of clinical induction to the discovery of the *juvantia* and *lædientia*, Professor Lanza admits the great advantage of the information to be derived from this source, for enabling a physician to ascertain the nature of diseases. In estimating the good or harm done by the means used, it is necessary to be acquainted with the regular and natural course of the disease.

In this view, he divides diseases into two classes. Those which are dependent on the continued operation of their causes, and exhibit simply physiological phenomena, namely diseases of grade, have no necessary or essential course; but are merely passive, diminishing or increasing in degree with the physiological forces of the patient: so, that in order to judge of the effects of any thing that is used in these diseases, it is only necessary to have regard to the effects produced on the physiological state of the patient. As these diseases are in their nature dependent on their causes, so their course is entirely regulated by the means employed, whence it is logically inferred, that they have no necessary or imprescriptible course. Diseases of mode, which are independent of their causes, and of double phenomenology, have, on the contrary, a necessary course: so that, increasing or diminishing the physiological strength can only increase or diminish their violence; but, whatever means may be used, they continue their course, increasing or diminishing as their pathological nature requires. If gastritis be excited, whether in consequence of fasting, of being over-heated, or of the irritation occasioned by worms, it must have a necessary increase or decrease, the excess of which may, perhaps, be mitigated by remedial agents, but the course of the disease cannot be prevented by force.

And, as such diseases are independent of the physiological state of the patient, it often happens, that, although there be great physiological debility present, yet that means increasing the strength prove hurtful, and those diminishing it still further prove beneficial.

In order to judge correctly of the relations existing between these diseases and the effects of the means employed, our author adopts the rule given by Hippocrates, but which was rejected by Brown and his followers; viz. to pay strict attention to the *physiological tolerance* which the body may appear to have for the things used, and the *alleviation of symptoms* which they produce. *The physiological tolerance of debilitants* is the ease with which reductive means, or solvents are borne, without the patient being so much debilitated by them, as might have been expected if they had been used in health, accompanied with an intolerance of excitants, so that these do not increase the physiological strength, as they would have done in a state of health. *The physiological tolerance of excitants* is, of course, the reverse. *The pathological alleviation of symptoms* is the diminution of the weight of the morbid phenomena proper to the disease, either absolutely considered, or relatively to the extent these might have increased, had the means not been employed. This diminution of these phenomena is advantageous, although it may not have been obtained without a greater reduction of the physiological strength. To render this rule the more clear our author takes typhus as an example in illustration, being a disease which the Brownonians regarded as one of great debility and hypostenic. Supposing the disease to have existed a number of days, and that there is great physiological debility, he says the following observations may be made, with a view to arriving at correct conclusions relative to the effects of the *juvantia* and *lædientia*. 1, The patient lies in bed, immersed in the vapour of his body, secluded from free access of fresh air, fasting, or subsisting on light and fluid food. This regimen is borne easily, and the reverse would be hurtful. 2, This debilitant regimen, blood-letting, and resolvent remedies are required. The disease itself produces certainly a degree of physiological debility, but less weakness is produced by the means employed than would occur in an individual in health, if he were exposed to the same treatment. 3, If the patient should clothe himself, expose himself freely to the contact of the air, move about, and eat and drink, he would not derive from such means so great an accession of physiological strength as we might be led to expect. 4, By the debilitating means used the physiological debility is

increased; but the heat, febrile aridity, and redness are diminished, as well as the density of the urine, delirium, coma, and convulsions; or, at least, if these symptoms are not diminished they increase more slowly. 5, All the excitants in the world cannot prevent the disease from producing the physiological debility; they can only cause it to be somewhat less; but, while they tend to prevent the increase of debility, they increase the heat, the febrile aridity, the load on the tongue, the density of the urine, the delirium, coma, convulsions, &c. From these facts the author infers, in obedience to what he calls practical reason or common sense, and in defiance of the hypothetical reasoning of the Brownonians, that typhus is an hypersthenic disease, and that it requires to be treated by the solvent (reductive) method. He contends that, by this rule, common sense is superior to every hypothesis for determining whether diseases require exciting or debilitating treatment, and states, that, to be enabled to judge with the greatest nicety of what is useful or hurtful, we ought to attend less to the use of medicines or other things of obscure or doubtful agency, than to the effects produced by those things which are ordinarily employed for the support of life, in order to observe whether they prove useful or hurtful, or whether they increase or reduce the strength.

From the consideration of this part of his subject the author remarks, that the facts afford farther support to his hypothesis of the modality of the vital force in diseases of mode, which have a necessary course prescribed to them by their nature, and which are susceptible of alleviation, even by means which increase the debility of the natural force. He regards such diseases, as new conditions, or, as the effects of new actions of the vital force dependent on a modification assumed by that force, and curable by such means as never fail to produce disorder, when employed in the ordinary state of life, that is, in health.

Our author considers the right application of practical induction to the result of the treatment of diseases as attended with much difficulty. The self-love of the physician is apt to feel hurt, when the slender weight of his operations is fairly exhibited in the balance: while his practice is apt to be rendered pusillanimous by the recollection of unfavourable results, or audacious by events appearing in a light too favourable to his efforts. With respect to their terminations, diseases of grade, which are those dependent on their causes, of single phenomenology and of a non-necessary course, are also necessarily dependent on the means employed, for if, in those of

excess in the degree of the vital force, the means employed regularly diminish it, while in those of defect they regularly increase it, and in those of irritation they restore its equilibrium, such diseases must necessarily terminate fortunately ; and if, on the contrary, the operation of the exciting causes is continually increased, such diseases must become worse and worse till death ensues. Diseases again, which, according to our author's hypothesis, are termed modal, and which are independent of their causes, of double phenomenology, and have a necessary course, have a termination not necessarily dependent on the treatment employed, for, even when treated in the most proper manner they sometimes terminate in death, and though treated erroneously, yet a certain proportion will recover. For example, of a hundred patients affected with typhus who shall be treated upon the excitant method, twenty shall die, but still eighty recover ; and, of the same number treated by a solvent (reductive) method, ninety shall recover, but still ten shall die. It might happen, too, that if two cases were selected for an example, the debilitating method used in the one might not prevent death, and the excitant method in the other might end in recovery. "By this," says our author "the quacks profit, by this the vulgar are often deceived." He comes to this conclusion, that that method of treatment, which has been easily borne by the patient, and which has produced alleviation of the symptoms must have been beneficial, although the disease may have gone on to an unfortunate termination ; and, on the other hand, that that treatment, which has been distressing and oppressive to the patient, must have been bad, although health may have supervened under it.

With respect to the fifth source of facts for the reasonings of physicians, medical analogy, our author observes that it is liable to lead to very fallacious results if not carefully interpreted. In diseases of grade he draws from analogy the same conclusions that the Brownonians do, namely, that in the hypostenic the phenomena are all hypostenic, while in the hyperstenic they are all hyperstenic, and that in irritative diseases they are neither hyperstenic nor hypostenic, but variable as are the causes of irritation.

In diseases of mode, however, our author protests against the abuse to which Brown applied analogy. From regarding all diseases as of grade, he fell into the error of drawing conclusions as to their nature from the character of their physiological phenomena, while he overlooked their special pathological symptoms, conclusions too, which led directly to the most absurd and dangerous practice. For example, in a case of pleu-

risys there are, in the first place, phenomena indicative of increased vigour; in the course of the disease, the excess is observed declining into defect of vigour; and, in its advanced stages, and even from the first in some cases, there may be very great physiological debility. From observing the phenomena of vigour or debility in this disease to be analogous to the ordinary hyperstenic and hypostenic phenomena, Brown infers that pleurisy may be hyperstenic or hypostenic, and that, though hyperstenic at its commencement it may, in its course, become hypostenic.

From this conclusion our author appeals to common sense, which, at the bed-side, is called clinical induction. Observe the pathological phenomena of pleurisy, the pain, the difficult lying down, the oppression, the cough, the spitting, the dryness, the heat, the fever, and, however they may have varied with the varying strength of the patient, they altogether present a most visible identity in all the species, and in every stage of the disease. From these facts practical induction infers, that pleurisy is, from its pathological nature, an identical and incommutable disease, whatever may be the condition of the physiological strength of the patient, and however that strength may vary in the course of the disease. Hence, induction comes to a precept which, under different terms, physicians of all ages have acknowledged, that in diseases of mode, since the phenomenology is double, there must be a double analogy, one to determine, as in diseases of grade, the physiological strength of the patient, and another for comparing the pathological part of a disease, with that of other diseases, in order to determine their points of resemblance and difference, and to draw safe conclusions, as to the analogies they bear to one another.

In concluding this part of his subject our author exclaims, "can it be possible not to see the phenomena to be duplicate in these last (modal) diseases? Can it be possible not to perceive the pathological part, always identical, to be different from the physiological part, always variable? And what mind shall not judge the pathological part, in these diseases, to be a change of mode, or a new quality of life?"

Our author distinguishes diseases into "morbid states" and "morbid processes." The former are exactly what have been already described as diseases of grade, which differ from health only in the vital force being increased, diminished or disturbed, and which have no necessary course, but cease, as soon as their causes cease to operate, or the proper remedies are applied. A morbid process is a change of the processes of life,

which possesses a peculiar and invariable character, independently of the causes that may have produced it, which, besides the physiological phenomena, presents pathological phenomena peculiar to itself and unknown in health, and which has a necessary course, and continues in defiance of whatever means may be employed by man to put a stop to its progress. A morbid process "consists in a series of newly ordained events, concealing, within itself, the cause of its nature, origin, and course." This part of the author's views is illustrated by the following example. Let three fingers of the same hand be treated thus; place the index in ice, the middle finger in boiling water, and the ring finger on nettles, and withdraw them in a few moments. In the first, the healthy excitement will be diminished; in the second, increased; and in the third, disturbed or irritated. If, on withdrawing the fingers and applying proper treatment, these morbid affections begin to decrease, and in a few minutes cease altogether, the changes that had existed are, "morbid states;" but if, from the bad disposition of the fingers, from the strong or long continued action of the causes, or any other circumstance, there should arise a true inflammation, this is an "inflammatory process," concealing within itself the cause of its identical character, and of the arrangement of its phenomena. The scalding of the middle finger by boiling water, and the irritation of the ring finger by nettles have also the appearance of inflammation, but they are simply "inflammatory states," because they preserve the characters of diseases of grade. For this reason, when any disease is observed to have its phenomena arranged in process, it is always a sure indication that it has become a disease of mode.

Morbid processes are of two kinds. The first is called *resolvable*, or *process of simple alteration*, and occurs when life, while it changes the qualities, preserves the elements of the old or sane textures, as in inflammation, obstruction, &c. If a fit remedy be employed, or a spontaneous cure takes place, this kind of process may be resolved, and the parts remain as in health. The second kind of morbid process is termed *unresolvable*, or *process of degeneration*, and occurs when life, under its new modification, produces parasite growths of new textures, such as scirrhus, sarcoma, &c. which do not admit of resolution.

The author considers morbid processes as affording a strong argument in support of his theory of the modality of the vital force in diseases, because, as he says, those diseases which visibly alter the organic textures, must depend upon an alteration in the mode of the vital processes of life.

Our author conceives that the principal superiority of what he calls the modern Italian doctrines, over the hypothetical practice of Brown, consists in having discovered and demonstrated that morbid processes are all invariably hyperstenic; that is, that all diseases of mode, whatever differences may exist between them and a state of health, nevertheless agree amongst themselves, in having the excitement elevated in degree above the standard of health. This condition he terms the hyperstenic identity of diseases of progression. The practical proof of the hyperstenic nature of each disease of process is referred to the place where he is to treat of such diseases individually, but assuming it here as a fact the author takes occasion to apply hypothetical induction to explain it. This explanation is as follows: the body, which, according to his hypothesis, is liable to changes in the mode as well as in the degree of life, when it has suffered any change of mode, or when a morbid process is established, necessarily must sustain a new life, a new mode of being, manifested by peculiar phenomena, and even by a new texture. These morbid vital processes are consequently always supplemental, (or other lives superadded) to the ordinary life. This is made evident, by considering the physiological debility of the patient, for the art of medicine, when not possessed of specific remedies for any disease, is obliged to undertake what our author terms the simple minorative cure, that is, to reduce the degree of any morbid process, and, for this purpose, has properly recourse to reductive remedies, which, by withdrawing the pabulum of life, are also hostile to the growth of every morbid vital process.

To such as may have a difficulty in comprehending what he means by the modality or change in the quality of life, our author says, that when speaking of diseases of mode, he does not pretend to understand, or explain how the vital force changes its qualities, but merely to express the abstract idea of the phenomena presented to his observation, in the same manner as, when a weight falls from above, and is seen to accelerate its motion in proportion to the degree of its descent, we cannot understand what increases the force that urges it downwards, though we can express the abstract idea of the phenomenon, by saying that the gravity of the falling body increases every instant in degree. In like manner, he says, that diseases of a nature independent of that of their causes, of double phenomenon, of a necessary course, of a termination not necessarily determined, of an invariable pathological analogy, with a growth of new texture, and a power to change the dispositions of the machine to their own nature, differ from

health, not in degree alone, but also in possessing a specific nature and qualities distinct from each other as well as from health; and saying that morbid processes are independent, immutable, specific, and always hyperstenic, is the same as to say, in abstract terms, that the vital force must have assumed a new mode or quality.

Our author divides the cure of diseases in general into three kinds, the radical, palliative and prophylactic. The radical cure he divides into two kinds, the specific or modal, and the minorative or gradal. By the specific cure, we cut short the progress of a disease, by means of some agent which changes the morbid mode to health. When, as is most frequent, we possess no specific agent for the cure of a disease, we employ the minorative or gradal method of cure, consisting of vivificants when the morbid excitement is below the healthy standard, or reductive remedies, when the morbid excitement is in excess. By this method, the degree, or impetus of a disease is "minorated" or reduced as much as possible, so that the morbid quality, being deprived of its pabulum, gradually and spontaneously disappears, and health returns.

The palliative and prophylactic cures are each of two kinds, namely, analogous, or contrary to the radical cure. When analogous to the radical, they tend to alleviate or prevent a disease, while at the same time, they are useful for diminishing its impetus or degree. When contrary to the radical cure, they tend to increase the degree or impetus of a disease, even while they suspend or mitigate some urgent symptom.

In simple diseases of grade, the specific cure consists in removing the cause, the continued operation of which keeps up the disease. It was well observed by Brown, that a man exhausted by fasting, might be restored by music, or the sight of a fine woman, so far as to exert and raise himself; and our author remarks, that the minorative cure of the exhaustion produced by hunger may consist in music, love, or any other exciting passion, which may diminish the effect of hunger and prolong life, but, that food alone can produce a specific cure, so that, if this be withheld, death cannot be averted. The necessity of specific agents for the cure even of gradal diseases, shows evidently, that though they differ from health only in degree, they are really different in mode from one another.

In irritative diseases, certain agents may somewhat soothe the irritation, diminish the uneasiness, and ward off some of the worst effects of the disease, but they cannot produce a specific cure. In diseases of mode a specific cure is produced by those agents which have the property of neutralizing or dispelling

the morbid cause present in adiathestic diseases, or of changing the condition of the vital force in diathestic diseases.

By a specific remedy, our author means a remedy, which, when administered at a proper time and opportunity, cures the disease completely, and without fail : which, without any delay, stops the course of a disease, so that, if given during the increase, the disease ceases to advance to its height, as it otherwise would have done, but begins to decrease as soon as the remedy begins to take effect : which is followed by the disappearance of the disease in conformity to the time, the dose, and the manner in which the medicine has been given : and which has the effect of leaving no symptom or effect of the disease undiminished.

In illustration of the minorative or gradal cure of diseases our author says, that we would bleed a man labouring under intoxication if we apprehended apoplexy ; that, if it were possible to extract the wine or to neutralize it, we should effect a specific cure of drunkenness, but that bleeding is only the minorative cure of the effects. In this mode of cure, it is necessary to beware of producing too rapid and sudden a change from one state of excitement to the opposite. Heat suddenly applied to a limb torpid from cold, is apt to induce gangrenous inflammation.

In irritative diseases, it is not possible, either by raising or lowering the excitement, to restore the disturbed vital force to order, while the irritating cause continues to act. Art can only alleviate the pain, and prevent some consequences of such diseases, namely, morbid processes, such as inflammation, nervous affections, &c. which, when once established, do not cease, although the irritating cause be removed. For this reason, irritative diseases do not admit of a minorative cure. They can be relieved by the specific cure, viz. the removal of the causes, or the palliative, whereby the symptoms are alleviated, or the prophylactic, whereby morbid processes may be prevented from supervening, or may be rendered less severe and less protracted, so that time may be afforded for the cause to pass away naturally, or to be removed by art.

In diseases of mode, or morbid processes, the minorative cure consists in withdrawing the ordinary stimuli, and in applying reductive remedies, in order, that, by reducing the physiological force, the morbid vital process may be arrested in its course or destroyed. This is the method practised in the majority of diseases, for, by reducing their impetus, we afford an opportunity for the morbid vital process, after being exhausted according to those laws, to which every vital process is liable, to

terminate naturally. This illustrates that valuable maxim of the ancients, which taught them to regard medicine as the follower, or handmaid, not the comptroller of Nature. The author here again laments the capital practical error of the Brownonians, who, disregarding the modality of morbid vital processes, and maintaining all diseases to be simple changes in the grade of the vital force, imagined, that by merely raising or lowering the excitement, the specific cure of all diseases might be accomplished without the aid of any particular specific remedies : and he lays down the following maxim as the proper rule for the management of the minorative cure of diseases of process. .

“The lowering of the forces in morbid processes, ought never to be short of what is required by the violence and nature of the disease, nor greater than what can be easily and conveniently borne by the patient.”

With respect to the palliative cure, our author remarks that, when it is analogous to the radical, there is no room for comment, since its propriety is admitted by all schools and all physicians. For example ; no physician would hesitate about a local bleeding, or an emollient cataplasm, to sooth local pain, or any other symptom of a morbid process, for the cure of which general reductive measures may be required. The propriety of adopting a palliative cure, when it is contrary to the radical, is less apparent, but still may be vindicated. Thus opium alleviates pain in pleurisy and other hyperstenic diseases, but the evil that results from its use in pleurisy, shews that it has acted as an excitant, that the disease is hyperstenic, and that the mitigation of the pain has been procured by a remedy contrary to that required for eradicating the disease. By tonic astringents, we may suppress a flux, which is a symptom of an hyperstenic disease, but the consequence is, that the disease is subsequently still more exasperated.

This fact is explained according to our author's theory, as follows : the morbid pleuritic excitement differs in degree, as well as in kind, from that of the opium which, however, is also morbid and hyperstenic, and which produces the stupefaction or lulling of the pain. When the two operate at once, the excitement of the opium is overcome, and though the pleuritic hyperstenia may be increased, yet the pain is lulled by the narcotic.

This kind of cure, however, is rarely admissible, since a transient alleviation might bring with it irreparable mischief ; yet it sometimes happens, that the palliative effect obtained, is greater than any possible future harm, and in such a case, it is

the duty of a discreet physician, who knows exactly how to calculate the effect of the means he employs, to take advantage of it. "The great Sydenham" is justly mentioned by our author as conspicuously successful in the discriminating use of this method of cure.

The following case, which the author gives in illustration of this mode of using palliatives, being almost the only case described in the whole volume may be interesting.

"We employed opium in this manner, with the consent of our respected colleagues, in a case of lumbago, which afflicted a respectable personage. The pain was so acute and obstinate, that the patient could at no time remain in bed with sufficient tranquillity to admit of relaxant (resolvent) diaphoretics, nor could he leave his bed to take a bath, or to obey the action of purgatives. The hyosciamus proved ineffectual, and local bleeding insufficient. The fifth day passed without fever, and without any symptom menacing phlogosis of any internal organ. With the obstinacy of the pain, the other hypersthenic symptoms did not fail to increase. Opium was given liberally, so as to lull the pain. On the sixth day, the bath, diaphoretics and purgatives, could be administered without inconvenience; sufficient evacuations were obtained. On the seventh there was no longer lumbago."

In this manner opium is often used for mitigating pain in syphilis, cancer, colic, wounds, &c.

The prophylactic cure, like the palliative, may be analogous, or contrary to the radical. Remedies which are employed to prevent the paroxysm, or the return of any disease, may be analogous, or contrary to those which are fit to be employed on the attack, or during a paroxysm: for example, blood-letting may be useful to cure a palpitation of the heart, and at the same time to prevent paroxysms of that affection; but the bark and stimulants, which are so useful in preventing the paroxysms of periodical fevers, would be most injurious if given during the paroxysm. In the cure of such fevers our author maintains, that the bark operates in a manner contrary to that of the remedies which are proper for the radical cure of the paroxysms. The prophylactic method of cure must be employed with great caution in the treatment of diseases which do not admit with impunity of their paroxysms being suppressed or prevented, as is sometimes the case with gout.

Our author founds general rules for forming a prognosis in diseases on the consideration of the constitution of the patient, the occasional causes, the proximate cause, the seat, the form, transmutations, and characters of diseases, and from those things, which, being exterior with respect to the body and the disease, have still an essential influence on the results.

A disease is always to be considered more dangerous in children, aged persons, and in bad habits of body, whether from being weakened by other diseases, or the long continuance of that, regarding which, our prognosis is under consideration.

A disease is dangerous in proportion to the power or violence of its occasional causes, and to the length of time they may have been applied.

The prognosis depends chiefly on the correctness of our knowledge of the proximate cause, and of the obstacles to be expected in eradicating it. The diagnosis determines whether a disease is susceptible of a radical, minorative, palliative or prophylactic cure, and the prognosis announces what shall be the event of the disease, if left to its natural course, and what benefit may be expected from art.

The result or effects of a disease varies according as the organ in which it is seated is more or less important, and according to the form which the disease assumes. An inflammation, an obstruction, a congestion, a nervous affection, and a profuse discharge, are different forms by which organs may be affected, and, by the assistance of our knowledge of anatomy and physiology, we judge of the form of the affection, and of the probable result.

Most diseases are capable of changing their seats and forms, and such transmutations may be beneficial or hurtful. A knowledge of their varieties is necessary to the establishment of a safe prognosis.

A disease may be of so malignant a character as to defy the power of medicine, and in another case, the same disease may be so mild as to require little or no aid from medicine. The prognosis in particular cases, must be just in proportion to the powers of discrimination, and the experience of the practitioner.

A patient may derive, not only great comfort, but relief essential to his recovery from the skill of his physician, the care of his nurse, and other circumstances foreign to the nature of his disease, but in the formation of a prognosis, all such circumstances, as they may influence the result of a case, must be taken into consideration by a prudent practitioner.

We have thus endeavoured to lay before our readers a general view of the principles which Professor Lanza proposes for guiding the reasonings of physicians respecting diseases and the operation of remedies, and which he considers as calculated to lead to safe and just conclusions if followed up in practice with fidelity, care, and judgment. There can be no doubt of the

advantage of proceeding to the investigation of diseases upon a systematic method, and that it is of the utmost importance to every practitioner to have his mind tutored in early life to the observance of certain rules, as to the order in which he proceeds in his enquiries into the circumstances of whatever cases are confided to his superintendence and management. We have no objection to the *Novum Organum Medicorum*, or System of Medical Logic of Professor Lanza, and we are apt to think that much less pains is bestowed upon this department of medical education in this country than its importance deserves. It is of course undeniable, that logic or the art of right reasoning is a universal one, and that any argument that is correct in itself, must be so, whether the subject relates to medicine, or to any other department of human knowledge; nor, after all the study that can be conferred upon logic, can it be said to be any thing more than the application of sound common sense to discover the true relations which the objects of our enquiries bear to each other: but the obscurity of the facts which form the ground on which medical men are compelled to build their conclusions, is often such as to require the nicest habits of discrimination to avoid errors, and the difficulty of the subject is often so great, that, after the greatest pains are bestowed upon it, we are still far from obtaining proofs on which the mind can rest with satisfaction. This very difficulty is apt to engender habits of carelessness or indifference in practitioners, whose zeal to reach perfection is small, or in whose characters indolence is a predominant failing. It cannot be doubted, however, that, although we cannot supply the want of common sense, by any artificial system of logic, the careful study of that science, with a view to its methodical application to the subjects of medical knowledge, must tend powerfully to guard against the bad consequences of erroneous conclusions, while, by impressing the mind of the student with the value of thinking rightly, and by exercising that faculty, he may be trained to most useful habits, that shall prove highly important to his success as a practitioner, and to his reputation, in case he should have occasion to appear before the public in the character either of an author, or of a witness. Great original talents cannot be the worse for cultivation, and a complete knowledge of the art of logic, the weapon which we employ in estimating the nature and results of diseases, may contribute as much to the soundness of our conclusions, as a knowledge of the natural and chemical qualities of medicines does to our success in prescribing them.

For these reasons, we regard the study of logic in its appli-

cation to medical science, as displayed in the volume under review, as highly deserving the attention of all who wish to form for themselves habits of reasoning with correctness, and of avoiding errors in the practice of their professional duties. We shall defer making any observations on the merits or defects of Professor Lanza's theoretical views, as developed in this publication, until after we shall have examined the application of his logical method to the consideration of General Morbid Forms, as exemplified in the second book, or division of the volume, to which we shall proceed in the next number of this Journal.

[To be continued.]

IX.

Practical Observations on the Convulsions of Infants. By JOHN NORTH, Surgeon-Accoucheur, M.R.C.S.L. &c. &c. &c. 8vo. pp. 294, London, 1826.

AFTER adverting, in a concise preface, to certain exclusive views regarding the pathology and treatment of juvenile convulsions, our author states as a general principle, and we have long admitted the same doctrine, that these affections are rarely if ever *idiopathic*, in the strict acceptance of the term; they are *symptomatic* of most of the diseases of infancy, and shall consequently be frequently prevented by close attention to the first deviations from health, and the timely application of treatment which must vary with the constitution of the child, and the particular derangement or disease of which convulsion is a symptom, or on which it is likely to supervene. He considers the phenomena exhibited during the paroxysms, as claiming less of our attention than the insidious derangements of health which precede the occurrence of the seizures, or the consequences that result from their frequent repetition; his remedies, of course, are little different from what should be employed in many and various modifications of infantile disease. With these remarks, we enter on his volume: it consists of six chapters, each of which, in its order, we shall bring under our readers' consideration.

CHAP. I.—*On the Frequency, the Causes, and Symptoms of Infantile Convulsions:—the Prognosis, and Appearances observed on Dissection.* Infants are particularly subject to convulsive affections in every region of the habitable globe. In confirmation of this fact, Mr. North adduces the return made by Dr. Clarke in 1793, in which it is stated, that of 17,650 children, born in the Lying-in Hospital of Dublin, a sixth part died during the first year of their existence, and that 19 out of 20 fell victims to convulsions. Dr. Lange has also recorded, that at Copenhagen, during a period of 13 years, no less than 12,769 children

perished from epilepsy : this physician attributed the prevalence of the disease to the luxurious and effeminate education practised in every class of society. Our author has not advanced any thing new or definite in illustration of this important question, but holds it to be a doubtless truth, that the death of a child is occasionally ascribed to the accidental occurrence of a convulsive paroxysm, when it was destroyed by some other disease, of which that was comparatively an unimportant symptom. He also regards it as being undeniable, that a vast number of children are suddenly cut off by an unexpected attack of convulsions, which not unfrequently occurs when no previous derangement of health could be discovered, or at a time when the malady, under which the child was labouring, began to assume a less severe aspect, and to justify a confident and favourable prediction of the result. From p. 4 and 5, we take an extract which contains two statements, at least, that merit attention.

“ Although,” he says, “ the convulsions of children are *in most cases symptomatic* of some other disease, they are of sufficient importance to admit of a separate consideration, inasmuch as they not unfrequently destroy life in a few moments, when it was not endangered by the malady which excited them. Notwithstanding, however, the universal admission of the fact, that convulsions are always to be regarded with apprehension, I am inclined to believe, from frequent personal observation, that no cases are dismissed in general practice with less attention than those which pass under the convenient term of Convulsions. It is, indeed, a source of frequent lamentation with physicians, and not unfrequently of neglect,—which is so commonly the offspring of despair,—that the diseases of children are particularly difficult to detect, from their inability of describing their sufferings. I consider this difficulty more imaginary than real. He who will take the trouble to regard with attention *the looks, the gestures, and the general demeanour of children in health, will have but little difficulty to detect the first advances of disease*; although considerable experience may be required to determine the precise nature of the malady, or its appropriate treatment.” 5.

Practitioners ought at all times to impress on the minds of parents the necessity of attending to the slightest convulsive movement in young children. With reference to this, Mr. N. observes, that attacks of this kind so commonly take place that they are not unfrequently looked upon with indifference, until their frequent repetition has strengthened the natural or acquired predisposition to their occurrence. The general axiom, he says, of “ *remove the cause and the effect will cease*,” is inapplicable to many derangements of the animal economy, and more particularly to those of the nervous system. When convulsions have once taken place, even in the most healthy subject, the brain and nervous system retain for a long and indefinite period such a morbid sensibility, that a return of them is to be apprehended from the most trifling causes, long after the *exciting cause* had been entirely removed. Nevertheless, he adds, what is precisely the change which is effected upon the brain and nervous system, or in what consists the difference between a brain thus predisposed and one that has never been subjected to a shock capable of producing disease, has never yet been satisfactorily explained,

and probably never will be so : many children have died with all the symptoms of hydrocephalus, accompanied by violent and repeated paroxysms of convulsions, and, after death, no trace of disease could be detected in the brain and its membranes. Passing from these observations, Mr. North proceeds at p. 9, to enumerate such of the anatomical and physiological peculiarities of the animal economy during the infant state, as tend to explain the origin of the aptitude of infants to convulsive affections. We quote the following.

“ Until the frail mind,” he says, “ and body of the infant are accustomed by habit to have their powers acted upon with impunity, the most hazardous susceptibility must necessarily exist. The muscles during infancy are pale, soft, and fragile ; their contractions are quick, frequent, and feeble ; and the external surface of the body is endowed with a very high degree of sensibility, in consequence of the nerves being covered only with a very fine thin cuticle. Hence, from very slight impressions arise very powerful effects. The circulation of the blood is very rapid, the arterial pulsations nearly double those of the adult. The capillary circulation is also infinitely more active. The lymphatic system exerts a more powerful influence upon the general economy of the infant than upon the adult. The muscular fibre as well as the skin is highly sensitive. The nerves are large in proportion to the size of the body. They resemble medullary pulps. Both the cerebral and ganglionic nerves are much more strongly developed in relation to the body than at any other period of life. The brain is large, and the nerves which proceed from it of a very considerable size. As we advance in years the coats of the nerves and the muscular fibres become firmer, and our susceptibility to external impressions is consequently diminished. Hence it is, than in proportion as we advance in years convulsions are less likely to take place. They sometimes occur during the period of youth. In the adult they are rare ; and they scarcely ever happen in old age. The sensations of a child are quick but transient. When any reaction takes place in the system, it is powerful and sudden, and coincides with the general mobility :—motion, indeed, is the language of an infant.” 11.

Many writers affirm, that children born with large heads, or whose heads increase in size disproportionately to their bodies, will have convulsions : Mr. N. has seen such seizures occur very frequently in children with small heads : this, however, does not bear directly on the former proposition : we ourselves have known hundreds of infants with large heads, in whom even the trace of a tendency to convulsions, was never discerned. It may be predicted with certainty, that the child born with a large head shall, if his brain continues healthy, be a powerful man ; but we do not know one reason by which we should be induced to regard this state as indicative of a predisposition to convulsive affections. Mr. North declares, that the children of parents, who marry at too early or too advanced an age, are more susceptible of convulsions than the progeny of those persons who marry in the prime of life. This we conceive to be a very important fact in the natural history of man ; and, of course, must be a deduction from extensive and greatly diversified observation : a sketch, however brief, of the manner of conducting such an inquiry would have been acceptable. No reason exists, in the judgment of our author, why a disposition to convulsive diseases

should not be transmitted from parents to their offspring, as well as a disposition to other maladies. The children of women in high life, he says, who enfeeble their health by late hours, hot and crowded rooms, and irregular diet, are *undoubtedly* more disposed to convulsive affections than the children of those females who are regular in their mode of living, and who enjoy the calm tranquillity of a country life. This last dogma has been repeated, for ages, and we fear without consideration: indeed we do entertain very strong doubts of its accuracy, and would appeal to the experience of "rural" practitioners for a determination of the question. Here we may transcribe Mr. N's definition of a convulsion.

"When," he says, p. 15, "there is either an alternate and involuntary contraction and relaxation of the muscles, or a permanent contraction of the muscles, convulsion exists. The contraction may be so trifling as scarcely to attract attention; or it may be exerted in the highest possible degree which the muscular structure is capable of supporting without rupture of its fibres. When the muscular contraction is permanent, it is then termed a *tonic convulsion*. In this species, the involuntary contraction of the muscles renders them motionless, and incapable of renewing their motion until the entire cessation of the convulsion. When there is an alternate contraction and relaxation,—a rapid succession of irregular action and rest in the muscles affected,—the term *clonic convulsion* is employed."

In remarking on the nature of convulsions, Mr. N. observes, that the seat of the disease is most commonly the eyes, the features of the face, the upper and lower extremities, and the respiratory muscles. Although the preternatural movements of the face may sometimes be exceedingly slight, it perhaps never happens, he thinks, that the features retain their natural tranquillity of expression, while other parts of the body are convulsed. It is stated at p. 19, that neither fever nor *disturbance of the intellectual functions* forms a part of the symptoms of a paroxysm of simple convulsions: a child may not be able to hear during the paroxysm; but this, it is said, is not a proof that its faculties are destroyed. Great circumspection, we think, ought to be exercised in uttering doctrines founded on the manifestations of intellect in children; for, in very many instances, we have not the means of judging of the integrity of the intellectual functions during the first stages of life. According to our views, which we state respectfully, there is always a *disturbance*, both of the sentient and intellectual functions during the convulsive paroxysm, and the *degree* of this disturbance is *generally* commensurate with the *intensity* of the seizure: often, indeed, there is an interruption, a true suspension of these functions, without a pledge or security that they shall ever be resumed.

Mr. N. owns much difficulty in establishing clear distinctions between the various kinds of nervous affections: in many cases, he says, they pass into each other imperceptibly, and the line of distinction is scarcely to be defined. He recognises a strict analogy between epilepsy and simple convulsions, and declares the muscular system to be, in each disorder, affected in a very similar manner. We were not prepared to meet with this declaration, and confess our inability to reconcile it with

the facts of general experience, and with Mr. N's own statement, that "neither fever nor disturbance of the intellectual functions forms a part of the symptoms of a paroxysm of simple convulsions."

With two hints on our ignorance respecting the periodical return of the accessions of many nervous diseases, on the violence of convulsive action, on subsultory startings, and on palpitation, Mr. North goes on to consider the "proximate cause or nature" of convulsions, concerning which, he acknowledges that we are, and probably shall ever remain, in doubt. We pass the first part of his observations on this head, with a recommendation of them to the reader's attention, and quote the following.

"It is undoubtedly," he observes, p. 32, "too much the custom of the modern system of education to stimulate the infant intellect to premature, and therefore, prejudicial exertion. The recommendations enforced by Struve should never be forgotten; and if they are forgotten by parents, it is the imperative duty of the medical practitioner to point out the necessity of complying with them. We should operate upon the tender intellect of a child by the gentlest progression. It must surely be much more judicious to complete the instrument previous to its use, than to employ it in an imperfect state. It is the same with children as adults. In the cultivation of the mental powers we are always to bear in mind the capability of the individual to answer the demands which are made upon him for exertion. It is not only irrational, but it is frequently destructive, to impose either upon the mind or body, but particularly upon the former, a load which it is incapable of supporting. It may be a source of consolation to those parents who are too apt to lament any apparent loss of time in the very early periods of life, to remember that early acquirements are not to be gained without destruction of health, and that the future progress and mental powers of the individual depend upon the foundation which is laid in infancy by judiciously adapting the studies of the child to its age and constitution. By premature efforts to improve the powers of the intellect, the organ in which they reside is exhausted. The practitioner, then, cannot too forcibly reprobate the pernicious enforcement of precocious studies. The injurious effects arising from the folly and false vanity of parents, who are ambitious of holding forth their children as specimens of extraordinary talent, are constantly presenting themselves to our view in a train of nervous symptoms, and of susceptibility to ordinary impressions, which frequently pave the way to decided paroxysms of convulsions."

Experience supports our author in allowing, at p. 41, that the brain is directly or indirectly irritated in most cases of convulsions: nevertheless, although this irritation may last but for a moment, and be so trifling as to produce no serious derangement of the cerebral functions, much less any alteration of the cerebral structure, yet still, he adds, it may be kept up by a repetition of the exciting cause, and produce irremediable mischief. At the same time, he cannot admit irritation of the brain to be the proximate cause of all convulsive affections; for, in some cases of local injury, they must arise independent of the "mediation" of the brain: neither can he conceive how the convulsive affections which arise in plethoric habits, and require abstraction of blood, and those that occur from the accidental loss of blood,—for it is an established fact, that every animal which dies from hæmorrhage

suffers violent convulsions,—can alike proceed from cerebral irritation. He admits, however, that in most cases of the kind, there is some *functional* disturbance of the brain, and that *organic* disease of the brain may originally exist as their cause, or be consequential to them; but, he adds, we must pause before we assent to, or shape our practice by, the unlimited statement, “that, in every case of convulsion, the brain is at the same time *organically* affected, either directly or indirectly.” In the subjoined extract, there are several observations leading to good and discriminate practice, and consequently most worthy of serious reflection.

“Both in children and adults,” says Mr. North, p. 47, “the effects which arise from any given irritation will depend upon the particular constitution and temperament of the individual. In one, local pain unconnected with general disturbance may ensue; in a second, an attack of fever may arise; and in a third, convulsions with or without pain or febrile movement. With whatever train of symptoms an infantile disease commences, or in whatever part of the body derangement of function or disease of structure may primarily be situated, the irritation endured by that part may be reflected upon the brain, and convulsions may follow as a symptom of the cerebral reaction upon the muscular structure. The probability of the occurrence of convulsions will be determined by attention to the particular constitution of the patient. The character of the original disease may vanish, and the treatment at first required must be changed for one more directly appropriate to the transition which has taken place. But although we are to bear steadily in mind the possibility and even probability of convulsions being produced by some serious cerebral disease; it is equally important that we should not hastily determine that the brain is organically or even functionally affected, because a paroxysm of convulsions occurs, or prognosticate the speedy effusion of water in the ventricles, unless enormous doses of calomel are prescribed and repeated bleedings are had recourse to. Such a mode of practice has been recommended by high authority in several cases of convulsions which I have watched with much attention; and at the same time it has been confidently asserted, that hydrocephalus would ensue if any part of the plan of treatment were omitted. A much more moderate, and I think more rational plan has been adopted, and the children have perfectly recovered. Unless they arise from mechanical violence or intense moral impressions, idiopathic affections of the brain are, I conceive, very rare in children. I by no means agree with the opinion, that when convulsions are symptomatic of encephalic inflammations, it is almost always the case that some evident cause has been applied, which has acted mediately or immediately upon the head, and from which inflammation almost certainly arises. Convulsions quite as frequently occur during inflammation of the brain, which is produced by sympathy with some distant part that is highly irritated. It is also said by the same authority, that there is a well-marked difference in the convulsions themselves, when they arise from affections of the head. It appears to me, when a paroxysm of simple convulsions is once excited, whatever may have been the cause of it, that it is essentially the same, although it may differ much in its degree of violence and duration.”

Mr. North condemns, as a source of fatal error, the practice of seizing upon some individual symptom, such as slight squinting, partial convulsions, or a crouping noise in breathing, as the ground for deter-

mining that water in the head will inevitably be the consequence, unless a particular and formidable treatment—large doses of calomel and profuse depletion, be employed: each and all these symptoms, he says, may arise when we have no reason to suspect any affection of the brain. Convulsions, he adds, in many instances are altogether local: they are confined to particular muscles, or particular sets of associate muscles, and have no effect whatever on the brain so as to disturb its energy. His observations on the convulsions of new-born infants and their causes; on the trismus nascentium; on those which proceed from inflammation of the cerebral membranes and spinal marrow; from tumours; depositions of bony matter and sanguineous effusions in the brain; from blows and wounds of the head; and from the desiccation of cutaneous discharges, attest the extent of his practical experience and acquaintance with medical history. At p. 62, he says, Nature appears frequently to labour under considerable difficulty in the production of various cutaneous affections; and, previously to the occurrence of eruptive diseases, paroxysms not unfrequently take place. In such cases, he adds, they are generally considered as a favourable omen; and, from his own experience, he should infer that the opinion is well founded, provided the eruption makes its appearance at the usual period from the commencement of the premonitory symptoms. Some things in the following extract, will probably be regarded as singular by many persons in the profession.

“That the brain,” p. 63, “does sympathize strongly with affections of the skin is a fact which is so frequently forced upon our observation, that no laboured confirmation of it will be required. There are some circumstances, however, connected with this admitted truth, that may admit of a moment’s observation. When inflammatory action takes place, it is confined to the capillary system, which is independent of the cerebral nerves; but the latter are excited by the relation which they hold with the former; and if this excitement reacts with force upon the brain, convulsions may be produced. The convulsive phenomena are more likely to occur at the time of the appearance of the eruption, because it is then that the greatest degree of irritation exists. We have observed that some respectable authorities look with suspicion upon the occurrence of convulsions previous to eruptive diseases. This discrepancy of opinion may perhaps be reconciled by reflecting, that whenever an irritation of the brain takes place in consequence of the sympathy of that organ with a distant part, that such sympathetic irritation, particularly in very irritable subjects, may pass into an independent irritation of the brain, which may be followed by very serious consequences, or even the death of the patient. Here then, the danger will be depending not upon the eruptive disease, which was the prime mover of all the disturbance, but upon the affection of the brain, which has been superadded. The opinion, therefore, that is so generally entertained, does require modification. Instead of asserting that convulsions which precede eruptive diseases are always harmless, we should only consider them so when they are produced by an excitement of the brain, which appears to be purely sympathetic.”

Intestinal worms are generally allowed to be a frequent cause of simple convulsions or epilepsy in children: our author is not inclined to deny, that convulsions may sometimes arise from this source; but

he believes much less frequently than is usually imagined. He has seen many "worm cases," but does not remember a single instance where convulsions appeared to depend upon the presence of worms in the intestines, or to be relieved by their being discharged. Our experience has been different: we have treated many cases in which we were sure that the convulsions originated from excitement induced by these parasitic animals, and subsided on their being expelled from the bowels by appropriate, especially terebinthinate remedies: the statement of varied observation ultimately leads to the establishment of truth.

We need not follow Mr. North very closely through his enumeration of the symptoms which distinguish the convulsive affections. He holds it to be always useful, in diseases, to examine the position of the limbs during sleep, particularly the sleep of children. If they deviate from the ordinary degree of flexure to the more straight position, there is generally some irregularity "in the state of tone and, of course, in the vital influx." Upon viewing the position of a child during sleep whom, from the occurrence of these symptoms, we consider disposed to convulsions, we shall frequently find, he adds, the limbs rigidly extended, the great toes and thumbs being turned inwards. Stretching of the limbs, it is true, is both in adults and children a natural action, exercised to restore muscular equilibrium; but, he concludes, in connexion with several of the other premonitory symptoms, it must be considered as a strong indication of a tendency to convulsive movements. Speaking of hiccup as a premonitory sign of more general convulsions, he states that he has never seen this symptom alarmingly severe in itself in children, although it is sometimes troublesome from its frequency and long continuance. In them, he says, its frequency is doubtless to be attributed in many instances, to an excessive quantity of food stimulating a weakened stomach. At p. 101, we meet with these sentiments, and copy them.

"A plethoric state of constitution increases the natural aptitude of the child for convulsions. But we must guard against being influenced by an erroneous opinion which is very general. There are many practitioners, and some of no mean celebrity, who assume, that in every case of convulsion there is either a local or general increase of the actions of the arterial system, which demands for its relief the abstraction of blood. It is, therefore, the more necessary to insist upon the frequent occurrence of convulsions from debilitating causes, and from a state of nervous irritability, without any vascular excitement either local or general. It has been said by Haller, and the doctrine has been adopted and repeated by Bichât, 'that the vital force manifests itself in two opposite states;—in paralysis, and convulsions. The first is the sign of *diminished energy*; and the second, of *augmented energy*.' Such an assumption is, I apprehend, contrary to fact; and if indiscriminately acted upon, must be followed by injudicious practice. Paralysis frequently takes place in such a condition of the general system as to require depletion for its relief: and, although the latter part of the proposition is often true, it must be admitted that it has many exceptions, and that 'augmented energy' is not the necessary attendant of convulsions, unless indeed the term refers merely to the increase of muscular action. It is worthy of remark, that every animal which dies from loss of

blood is attacked with violent convulsions during the last moments of its existence. This fact is daily exemplified in slaughter-houses. Puerperal women, who suffer considerable hemorrhage from the uterus, are almost invariably convulsed. There can surely be no 'augmented energy of the vital force' in these cases; for it must be observed, that convulsions occur before any reaction takes place in the system weakened by excessive bleeding." 103.

Into this long chapter Mr. North has introduced a multitude of sensible remarks, which are chiefly practical, and on that account more valuable: the most experienced of our readers may peruse them with advantage. Towards the conclusion he remarks; we have yet to learn how to determine positively when convulsions do arise, and when they do not, from organic lesion of the brain, or from effusion of water into its ventricles. He thinks we have little reason to apprehend danger when the convulsive attacks are slight and of short duration, and succeeded by the natural cheerfulness of the child. On the contrary, he adds, a repetition of the attack is to be dreaded when the paroxysms are of long continuance, gradually increase in severity and violence, and leave the child dull and heavy. In all cases he himself witnessed, where the infant was destroyed suddenly during convulsions, the dark colour of the face and neck, and the almost stertorous breathing indicated a state nearly allied to apoplexy in the adult. He failed of procuring a dissection of such subjects: we have made more than thirty, and invariably found a very loaded state of the sanguineous system in the head, with more or less effusion of lymph in the ventricles of the brain: in several we discovered considerable extravasation of blood from a ruptured vessel.

CHAP. II.—*Treatment of Convulsions.*—Mr. North very judiciously opens this chapter by reminding the reader that, as the causes capable of producing convulsions in children are almost innumerable, so their treatment must be ever varying: it would, therefore, he says, be a useless effort to endeavour to lay down a determinate mode of practice for every modification of these convulsive affections: the general principles upon which our treatment must rest can only be expected. We shall not, on this occasion, undertake a systematic exhibition of his doctrines on this important branch of practice, but confine ourselves to a few selections and extracts, accompanied with incidental remarks. We prefer this, as the method best adapted to induce our readers to study the work itself with that care and attention, which the candour of its author, and the excellence of his precepts indisputably deserve.

According to Mr. North's experience, the severity of convulsions in children is frequently much increased by the irritation arising from repeated attempts to administer medicine internally during the paroxysm. He prefers opiate frictions upon the chest and abdomen, as being then more serviceable than any internal remedies. It can never, he thinks, be improper to inject a purgative glyster while the fit prevails; and, if there are evident marks of a tendency to sanguineous congestion in the head, he advises abstraction of blood, by opening the jugular vein or

cupping the temples: to apply a few leeches, according to the common custom, is a loss of time, if bleeding be really required. Let practitioners ponder well the practical observations we now transcribe.

“It is not an uncommon error,” says Mr. North, at p. 138,” for practitioners to estimate the strength of the patient by the violence of the convulsive movements, and to determine the propriety and extent of bleeding by this deceptive criterion. It is to be remembered, however, that no convulsions are more violent than those which arise from hemorrhage or other debilitating causes. The most violent paroxysms of convulsions I ever witnessed occurred in the person of a weak and delicate woman, who had suffered from uterine hemorrhage after labour. We are not, therefore, to abstract blood during a convulsive paroxysm merely with the intention of relieving its violence. We must be guided by those appearances which have been already stated to indicate an undue and dangerous determination of blood towards the head: but if in every case we bleed during the convulsions either of adults or children, however strong may be the popular prejudice in favour of the practice, the life of the patient will frequently pay the forfeit of our unjustifiable compliance or our want of judgment. It must be evident that the tender constitution of a child cannot bear the long-continued and violent convulsive struggles which we frequently witness, without much subsequent exhaustion.”

Willis and others have said, that if blood be taken during a paroxysm of convulsions, it coagulates instantly like butter: Mr. N. however, has never observed this phenomenon, and confesses his doubt of the fact altogether, but regards the speedy occurrence of concretion on the effusion of blood, as a reason sufficiently powerful for the discontinuance of depletory measures. Notwithstanding Dr. Currie asserted, from eight years' experience, that the cold bath is very efficacious in removing the convulsions of children, from whatever cause they may arise, that it stops the fit, and gives time for the application of other remedies; yet our experienced author declares, that he should be unwilling to plunge a child of a very delicate and enfeebled constitution into a cold bath, while labouring under a paroxysm of convulsions: it would appear to him, he says, to be a hazardous experiment. What we next extract, contains matter of momentous import:—

“If the child,” says our author, p. 145, “is robust and of a plethoric constitution, with the head hot, and disproportionately large, the carotids throbbing, the countenance flushed, the eyes sparkling and projecting from the orbit; if he sinks into a state nearly approaching to coma, after any unusual agitation, we have reason to fear a hazardous determination of blood to the head, and must proceed accordingly. Under such circumstances, a state very nearly resembling that of apoplexy in adults may follow. The symptoms may be analogous between the two diseases; but the appearances on dissection will rarely be found the same. Baumes was of opinion, that every child who died during a paroxysm of convulsions, died from apoplexy. If the term Apoplexy, however, is to be limited to extravasation of blood in the brain, it is a very uncommon disease in children: but, if it is extended to every case of cerebral compression, it is of very frequent occurrence; for the same phenomena will often be the result of inflammation of the membranes of the brain;—of effusion of water into the ventricles, &c. Local or general bleeding, or perhaps both, may be required according to the intensity of the

symptoms and the constitution of the patient. The mode in which we abstract blood is of considerable importance. I must be allowed to declare my utter want of confidence in the practice which is recommended by almost every authority. I allude to the application of a few leeches to the temples. I have never seen well-marked symptoms of determination of blood to the head in children removed by leeches, however freely they were applied. Their application never fails to annoy the little patient considerably, and their effect is not to be relied on. Blood should be taken from the jugular vein, or we should have recourse to cupping upon the temples, or behind the ears. Cupping is at once an elegant and efficient mode of abstracting blood, provided, indeed, the operation is adroitly performed, which it most assuredly will not be, unless it is entrusted to those who are constantly employed in that particular branch of surgery."

At the risk of enlarging our article with extracts, we must give the following, professing our entire approbation of the author's sentiments.

"The bowels," p. 152, "should be freely acted upon by proper doses of calomel combined with jalap. Laxative glysters are to be considered as useful auxiliaries. I entirely disapprove of the practice of administering in such cases large and repeated doses of calomel every two or three hours, from some hitherto undefined, and, I believe, imaginary notion, that this remedy is capable of acting as a specific in convulsive affections, independent of its purgative properties. I am confident that the constitutions of children are frequently ruined by the heedless and indiscriminate manner in which this powerful medicine is employed. The practice requires to be more strongly deprecated as it is not only pursued, but taught, by very high authority in this country. For what purpose, it may be asked, can calomel in two or three-grain doses every three or four hours be prescribed in a case of convulsions? I presume, the intention must be to stimulate the lymphatics, and to remove any fluid that may have been effused into the cerebral cavities. But the occurrence of convulsions, it is to be remembered, is no proof of any effusion of water, or of any disposition to such effusion in a great majority of cases."

At p. 156, Mr. North discusses the advantages to be expected from the proper and assiduous application of cold to the head, in cases where symptoms of determination of blood to the brain, are present. He directs the whole head to be completely wetted with a large sponge soaked in spring-water, which should be frequently changed; or to have pounded ice, in a bladder, applied over the same parts. When the child becomes pale and the head cool, these applications should be discontinued, and renewed when flushing of the cheeks and heat of the head, indicate a return of the vascular excitement: he inculcates, at the same time, a careful support of the natural heat in other parts of the body. Many of the French physicians put the little patient into a warm bath, while the ice is being applied to the head, and the plan, says Mr. N., I have no doubt is very judicious. In cases of this kind, we have for many years, directed the practice of immersing the child's lower extremities in a warm bath, while cold water is poured, in a gentle stream, on the head and cervical spine, by an assistant; and, during this process, the countenance is attentively watched, and the pulse in both wrists observed. When paleness and collapse of the face supervene, and the arterial actions decline or intermit, the effusion

obtained the best effects from blisters to the calves of the
the shoulders. Blisters to the head are decidedly prejudicial.
affirms, they certainly keep up a discharge from the interior
head, which can only be maintained by increasing the
within the cranium. This, we suspect, is one of the
ries by which even great minds sometimes allow themselves
amused. If, under such circumstances, there must be a
arterial action, why should the nearest vessels escape it?
Externally to the cranium, there is a sufficiency of arteries
whose increased activity, a discharge of the kind could be
ported, while those of the brain should have their energy
depressed. Might it not be expected, then, that the
abstraction of excitement from the cerebral vessels, proper
degree of exaltation imparted to those in the integument.
But all this, of course, is pure assumption ; and, if Mr. [?]
in support of his conclusion, this must certainly be preferred
sand arguments however plausible these at first sight.
There is much good sense in our author's rules for the
opiates to children : we transfer them to these pages.

“ I am aware,” he observes, p. 165, “ of the strong objection
to the employment of opiates in the diseases of children. I
I admit that these objections are well founded ; but I am con-
popular abuse of narcotic medicines, the mischievous effects
frequently presented to our view, has led to their too general
prohibition among practitioners themselves. Every thing is
from bleeding and purging and calomel ; and not unfrequently
dies are pushed to a destructive extent, when much more might
gained by the tranquillizing effects of sedatives. We are not
selves of a powerful weapon, because in the hands of the un-
have proved the means of destruction rather than of defence.”

progressively increase the dose. So variable are the effects of this class of medicines, particularly in children, that in each case we can determine only from the operation of the remedy the propriety of its continuance, or the dose in which it is to be exhibited."

At p. 202, Mr. North reverts to the subject of blistering children, with a great deal of good feeling, and sound philosophy. If convulsions occur during fever, he says, we are advised by many authorities, to apply blisters freely: he confesses, however, his ignorance of the principle upon which this practice is recommended. In many instances he has seen considerable distress, and aggravation of symptoms arise from blistering children in such circumstances; and, twice, he knew infants destroyed by the sloughing of ulcers, which could not be arrested. By repeated observation he has been led to adopt the opinion, that if blisters were *never* applied to children in *any case whatever*, much less evil would arise from the want of them, than is in common practice daily, or perhaps hourly, inflicted by this popular and painful application; except in the comatose state, he believes it rarely acts beneficially as an excitant. For squinting, he advises the child's being obliged to wear, for two or three hours every day, an ivory instrument over each eye, with a very minute aperture in the centre: the voluntary effort to look through the holes, without which, vision cannot be enjoyed, will occasionally restore the natural action of the muscles, and remove the deformity. He gives other methods, and lastly, that of Dr. Jurin, which is this: Place the child before you, and let him close the undisturbed eye, and look at you with the other. When you find the axis of this eye fixed directly upon you, bid him endeavour to keep it in that situation and open his other eye. You will now immediately see the distorted eye turn away from you towards his nose, and the axis of the other will be pointed at you: but, with patience and repeated trials, he will by degrees be able to keep his distorted eye fixed upon you, at least for some little time, after the other is opened; and when you have brought him to continue the axis of both eyes fixed upon you, as you stand directly before him, change his posture; put him first to one side of you, and then to the other. When in these different situations he can perfectly and readily turn the axis of both eyes towards you, the cure is effected.

Mr. N. at p. 216, says it may be worthy of observation, that M. Husson, a French writer, in his researches upon the vaccine disease, has recorded two cases in which the appearance of the vaccine vesicles entirely freed the patients from convulsive paroxysms to which they had been subject for several months, and which had resisted all the ordinary methods of treatment. For our own parts, we hold any communication from M. Husson in very low estimation indeed: he who could fill many pages of an 8vo. volume, to prove, by fiction and falsehood, that Dr. Jenner pilfered the first idea of vaccination from a Frenchman, is too contemptible to be censured.

CHAP. III.—*On Infantile Epilepsy.* Epilepsy in children, our author thinks, is an extremely common disease: it is sometimes hereditary, but much more frequently acquired after birth. During the first four or five years of life, both sexes are equally subject to it, but, he says, after the age of seven or eight, it is certainly more common in females. Every cause, capable of producing a slight and even partial convulsive affection, we are informed, p. 220, may give rise, under particular circumstances of predisposition, to a well-marked paroxysm of epilepsy. From what he himself has observed, he should doubt whether epilepsy and simple convulsions be reciprocally convertible into each other: he never saw a case of epilepsy lose its distinctive characters and pass into simple convulsions. Dr. Parry, after Hippocrates, taught that epilepsy depends on excessive impetus of blood in the vessels of the brain, whatever may be its primary causes; but, in Mr. North's opinion, we have often no evidence of any such increased action in the cerebral vessels, even where the epileptic paroxysms have been frequent and severe. He also regards the treatment that is generally considered capable of reducing "excessive impetus," either local or general, as being such as would in many cases, rather aggravate the severity and increase the frequency of the attacks. Repeated dissections of epileptic patients have discovered lesions of the brain, to which the disease has naturally been attributed; but these appearances have not unfrequently also been detected both in children and adults who never suffered from epileptic or other convulsive maladies: besides, as Mr. North very properly asks, if the epilepsy had been dependent upon a cause which was constantly present, how can we account for its paroxysmal form?

Epilepsy is usually divided into the idiopathic and symptomatic kinds: in the former, its cause is presumed to reside in the brain, or the brain is immediately acted upon: in the latter, a part distant from the brain is originally irritated; it is infinitely the most common. In children, perhaps, the most fertile source of symptomatic epilepsy may be traced to derangement of the stomach and bowels: from this, at first, slight attacks of simple convulsions may succeed, which ultimately degenerate into epilepsy; or, an epileptic paroxysm at once occurs, without any previous convulsive malady of a milder nature. This is not surprising, says Mr. North, when we consider that the stomach is so abundantly supplied with nerves derived from the eighth pair and intercostal nerve, both of which have so striking an influence on the animal economy. In every case of epilepsy, he adds, the brain is affected either primarily or secondarily. There is as much variety in the duration as in the severity of an epileptic paroxysm: sometimes, it lasts only a few minutes; sometimes for several hours. The interval between the paroxysms is also very uncertain; and the danger is in proportion to the frequency of the seizures: when death ensues, it usually takes place in the state of coma and exhaustion both of body and mind, which successive attacks of the disease almost invariably produce. An epileptic paroxysm may occur several times in the day; and, although one patient may suffer repeated attacks without permanent injury,

another may be quickly destroyed during the fit, or reduced to a state of idiotism: the severity of the paroxysm is generally more dependent upon the irritability of the child than upon the nature of the exciting cause. Medical history relates the cases of patients who were invariably seized with epilepsy from the influence of certain odours, from particular noises, or from the sight of certain colours: one child had always a paroxysm on observing any red object: the cases arising from the sudden sensation of fear, or from the sight of a patient in a fit, are most difficult of cure.—These sketches, from our author, are indicative of experience and research.

• Mr. North's description of the premonitory and diagnostic symptoms is concise and graphic: his picture of a *strongly marked* epileptic paroxysm is elaborate and faithful; we give it insertion.

“ The eyes,” he begins, p. 230, “ appear to project unnaturally, and are fixed; the eye-lids tremble; the ball of the eye is thrown upwards, so that only the conjunctiva can be seen; the face is swelled, becomes red, livid, or black, and is sometimes apparently in a state of ecchymosis: the features are horribly distorted by the powerful and irregular action of the muscles of the face: the lower jaw is sometimes firmly closed; at others it is forcibly separated from the upper jaw, and luxation of it is to be feared: the tongue is frequently thrust from the mouth, from which is discharged a frothy saliva; and if proper precautions are not adopted, the tongue may be severely injured when thus protruded, from the alternate contraction and relaxation of the lower jaw: the blood-vessels of the head and neck are excessively turgid: the head is thrown about in various directions, and sometimes becomes suddenly fixed: the whole body is agitated by the most violent convulsions, which may subside for a moment or two, to be again renewed with undiminished force. The same remission of the convulsive movements is also frequent during the paroxysms of simple convulsions. During this cessation, however, the expression of the countenance, and the gestures of even a very young child, lead to the conviction that it is sensible of its state of suffering. Not so in the abatement of the violence of a true epileptic paroxysm. The child either lies motionless and totally insensible, or rolls its eyes about with a wandering and unfixed gaze, without being attracted by the look of the mother or the nurse, and without the appearance of any degree of consciousness. The limbs of one side are commonly more affected than those on the other. In most cases, the child, when attacked, staggers and falls instantly to the ground. Occasionally, however, he remains fixed in the position in which he happened to be at the moment of attack: the head is moved from side to side with great rapidity, all consciousness being destroyed. An attack of epilepsy is sometimes marked by a sudden barking noise, arising from a convulsive movement of the pharynx. In hysterical women this symptom is very common, and, from the similarity of the convulsive paroxysms in Hydrophobia and Hysteria, may have given rise to the popular supposition of hydrophobic patients barking like a dog. Sometimes there is a trembling of the whole body, without well-marked convulsions of any part, which is followed by rigidity of all the frame, and total privation of sense. I have myself never seen this form of attack in infants. It is mentioned, however, by most authorities. The respiration is generally laborious. The breathing is sometimes stertorous; and the attack is then closely allied to, if it is not identically the same with, apoplexy in the adult. Symptoms of internal distur-

bance are frequently joined to the external and evident convulsions. The child vomits: the stools and urine are passed involuntarily. In fact, the diaphragm, stomach, bladder, and intestines, appear to be under the dominion of the same irregular and involuntary contractions as the external parts. After the termination of a paroxysm of epilepsy the patient is generally bathed in sweat. De Haen observes, that the perspiration has sometimes a very fetid smell, and is so abundant as to wet through the bed-clothes." 233.

CHAP. IV.—*Treatment of Epilepsy.* From the endless crowd of causes upon which epilepsy depends, it is evident that the indications of its cure must also be various and generally uncertain: many cases of the disease, indeed, in the present state of our knowledge, are totally irremediable. Impressed with this melancholy truth, Mr. North sets out, in this chapter, to point out the best measures for alleviating the severity of the disease, and for procuring as long an interval as possible between the paroxysms. He has stated these with unusual conciseness: they are very pertinent, and founded on principles exceedingly philosophical: we must, therefore, give them a place in the Journal.

"Whatever," he says, p. 240, "is capable of increasing the action of the heart and arteries, or of causing a determination of blood towards the head, should be carefully avoided. Violent moral impressions frequently induce a sudden and severe paroxysm of epilepsy, even in children who had previously exhibited no manifest disposition to convulsive affections. Where convulsions or epilepsy have once occurred, such mental emotions should be guarded against with additional care. The same observations that have already been applied to impress the importance of paying strict attention to the diet of children particularly predisposed to simple convulsions, refer with equal force to epileptic patients. The same principles must also guide our practice in the selection and continuance of purgative medicines, and in our general mode of treatment; although, it must be confessed, we are much less likely to succeed in our efforts to relieve epilepsy, however judiciously they may be directed. With every suitable precaution, however, both with respect to diet and the general management of the child, a determination of blood towards the head will frequently require to be repressed by the abstraction of blood. I should prefer cupping from the temples or behind the mastoid process. The jugular vein may generally be opened with facility and advantage. The quantity of blood drawn can only be determined by the effect produced. The head should be washed with cold water every morning, and on no account should the hair be allowed to grow either thick or long. Such is, in brief, the only treatment we can pursue,—the only precautions we can adopt in those cases of long standing and confirmed epilepsy, which we have reason to believe arise from causes over which we have no power, and which are accompanied by symptoms of determination of blood to the head. I have not spoken of the application of moxa to the spine, of blisters to various parts of the body, and of some other painful remedies, the use of which has been suggested by various authorities to prevent the return of epilepsy in children. In many instances of epileptic children I have known these experiments tried (in my opinion very unjustifiably) without any advantage. To such an extent has the rashness of some writers proceeded, that they have advised us to trepan the cranium, in the hopes of finding hydatids in the brain. The actual cautery has also been applied to the head. It is an easy, although not a

harmless, amusement, to speculate in the closet, and to devise means for the removal of a disease, the origin and progress of which we picture to our minds according to the capricious influence of the moment." 243.

Mr. North next goes on to notice the value of different external applications, anti-epileptic specifics, and internal remedies; and, on this head, expresses himself with great candour and discrimination. He states, with De Haen, the necessity of paying strict attention to the symptoms which precede the paroxysm; for, he says, if we succeed in cutting them short, the fit is in most cases procrastinated. In confirmed cases of epilepsy, we are undoubtedly justified in trying any remedy that inflicts no suffering; but, Mr. N. declares, with much humanity as well as propriety, that he should not be inclined himself to add the torment of painful remedies to the severity of the disease, without more reasonable expectations of success than experience appears to promise. He has tried many of the internal remedies that have been proposed, as well as the external counter-irritants, but with little benefit. Oxyde of zinc, given for a considerable time, appeared to render the paroxysms less frequent: if the child is of a sufficient age to express its feelings, and can describe the peculiar sensations which indicate the approach of a paroxysm, he should, in most cases, exhibit an emetic of the sulphate of zinc: this, he adds, would not prevent abstraction of blood, if indicated. He has often seen both epileptic adults and children tormented for weeks and months by setons, blisters, tartar-emetic ointment and issues, but in no one instance has he known these things do any good. Judging from the results of his own observation, he concludes that counter-irritants have been extolled from speculative notions of the benefits they ought to produce; rather than from any practical proofs of their actual effects. He has never administered musk, assafoetida, castor or valerian, and thinks that, in infantile epilepsy, opium can rarely be admissible. When the disease is caused by excessive weakness, arising either from loss of blood or defective nourishment, he advises our proceeding very gradually in the application of invigorating remedies: when the attacks have not been very frequent, sometimes a permanent cure may be obtained by the carbonate of iron, sulphate of quinine, and the daily use of a bath, progressively reduced from the tepid to the cold temperature. Mr. N. deprecates all attempts at removing convulsive affections by exciting alarm; but, when they proceed from irritation, he would try the effects of the fear of punishment. When the epilepsy of infants is symptomatic of disease affecting the whole system, or depends upon some local irritation, as painful dentition, the remedies must, of course, be directed to a removal of the cause: inunction of the brimstone ointment upon the abdomen has been very warmly recommended by the German physicians, for the cure of the infantile epilepsy.

CHAP. V.—*On a Spasmodic Affection of the Chest and Larynx in Young Children, accompanied by general or partial Convulsions.* Mr. North has treated many cases of this very distressing variety of convul-

sive affections; and, by this means, has been enabled to give an exquisite description of the phenomena by which it is characterized. We should fail of our duty were we to pass it with a cursory sketch: it is this;—

“The premonitory symptoms,” says he, p. 254, “occur at an uncertain period; generally between the third and seventh month. At first they may not be sufficiently striking to attract the particular attention of the friends, although the practitioner, who has met with similar cases, may with much confidence predict from them the series of symptoms which is subsequently to be developed. When the child wakes from its sleep, the breathing is for some moments unusually accelerated, and is accompanied by that kind of noise which an increased secretion of mucus in the air-passages would produce. If the little patient has previously enjoyed a good state of health, the characteristic rotundity of feature observable in infants quickly undergoes a remarkable change; the countenance becomes anxious; the sides of the nose are drawn in; the face is pallid and emaciated; the child frowns almost constantly: when put to the breast, it sucks greedily for a moment, but suddenly ceases to do so, throwing back the head with violence. Whatever may have been the previous condition of the bowels, they now become constipated. A considerable time may elapse before any remarkable change takes place in these symptoms. A convulsive affection of the hand is usually the next morbid sign which excites attention. The child’s thumb will be found constantly and firmly pressed upon the palm of the hand: the wrist and ankle-joints are bent rigidly inwards! the head is almost constantly thrown backwards, by which the anterior muscles of the neck are kept painfully upon the stretch. The inconvenience at the moment of waking is not now a mere acceleration of the breathing,—this symptom still continues in an aggravated degree,—but the noise accompanying the respiration has gradually assumed a very different character from that which at first marked it. Each inspiration is now attended by a loud crouping noise, which may be heard in an adjoining apartment: the chest and larynx appear to be painfully constricted; the heart palpitates violently; the child sobs, but never cries in its natural manner, during these paroxysms of suffering. So great is the difficulty of breathing, that it sometimes appears to be almost totally suspended for a few seconds. The countenance is then, usually, pale as in a state of syncope. Sometimes, but more rarely, it is dark, and the vessels of the face turgid as in apoplexy. The child has frequent attacks of convulsions, during which the features are much distorted. The whole body is sometimes, but more rarely, implicated in the convulsive movements. The paroxysms vary in duration and violence. In a child, in whom the convulsions were very frequent and severe, the state of opisthotonos was so complete, that for many days the head and heels were the only parts which touched the bed. If with difficulty this apparently painful position was altered by the mother, it was quickly resumed. The anxiety of the countenance, which was at first only occasional, becomes in the progress of the complaint constant and very strongly marked. The brow is constantly knit. In the majority of cases no sustained febrile action is to be detected, nor is there usually any indication of particular determination of blood towards the head. I have lately, however, seen two cases in which were superadded to the above train of symptoms considerable febrile disturbance and much cerebral derangement, with evident determination of blood to the brain. In several instances I have known the firm contraction of the thumb, the rigidly bent position of the hand and foot,

and the crouping noise in respiration, continue for many weeks without intermission. The child sometimes appears lively for a short period, and the countenance may be animated by a momentary gleam of cheerfulness; but it almost invariably awakens from its slumbers, however tranquil they may sometimes appear, with a convulsive paroxysm similar to that above described." 259.

Our author believes that this affection is, in many instances, immediately connected with painful dentition, and has procured instant relief by freely dividing the gums: the symptoms gradually subside on the appearance of teeth. In connexion with the other signs, there may be distinct evidence of cerebral derangement, and a necessity for prompt and vigorous treatment; but, in a great majority of cases, he thinks there is no proof of affection of the head, and that we have no right to assume that certain individual symptoms, such as the crouping noise or bent thumb, must necessarily be followed by affections of the brain.

One fatal case furnished Mr. North with the following appearances on dissection. The vascular system of the brain presented a highly turgid appearance: a small quantity of blood was effused under the dura mater in several parts: the ventricles contained a small quantity of fluid: the whole cerebral mass was particularly firm: the cerebellum was softer than usual at so short a period after death. The thorax was not examined—a most important omission. The only evidence of disease, detected in the abdomen, was seated in the liver: its whole substance was firm: upon the upper surface were three white spots, about the size of a sixpence, which felt, on passing the scalpel over them, like cartilage: the mesentery and intestines were healthy. After this detail, Mr. N. proceeds to reconcile the circumstances of this case with his previous doctrine, by stating, that the paroxysm which destroyed the child was occasioned by a violent and very passionate fit of crying, induced by some interruption of his amusement; and that death took place from a sudden and overwhelming rush of blood to the head, differing but little from an attack of sanguineous apoplexy in the adult. This child had been in good health for a fortnight before his decease, and his symptoms had more than once vanished by freely lancing the gums. In all cases of this kind, we would urge the necessity of examining the state of the thoracic viscera, after death; and more particularly the nerves distributed to the respiratory system, and the dorsal and cervical portions of the spinal cord.

CHAP. VI—*Treatment of the Spasmodic Affection last described.*—This peculiar affection is regarded by Mr. North as being, in a great majority of cases, connected with a painful and tardy process of dentition; and, in consequence, he recommends a free division of the gums in every case where they are swollen or much expanded upon the surface. He advises the gum being perfectly divided down to the advancing tooth; and, if the incision is made with a lancet, which has "lost its edge," relief may be more confidently expected. A simple and free division of the parts is sufficient for extricating the incisor and canine

teeth ; but, he says, the molars require a conical incision : he holds it to be worse than useless, to administer anti-spasmodic medicines so long as the local irritation exists. When constipation of the bowels prevails, as it generally does, he employs the more active purgatives: of these, calomel and jalap, or infusion of senna with tincture of jalap are to be preferred. If there is evidence of hepatic derangement and the stools have an unnatural appearance, a grain of calomel may be given each night with advantage. On finding reason to apprehend danger from cerebral disorder, blood must be taken from the jugular vein, or by cupping upon the temples : cold applications to the head, he adds, with the occasional use of purgatives, strict attention to the appearance of the gums, and the greatest care to avoid all external and internal stimuli ; are the chief points to be regarded. Sedatives are generally unsuitable: when indispensable, Mr. N. prefers the extracts of hemlock, or henbane : we give an excerpt having reference to this subject : it concludes the Work ; and, with it, we shall terminate our analytical exposition of its contents.

“ I hope,” he says, p. 280, “ I shall not be thought to have advocated too strongly, in the course of these pages, the employment of sedatives in infantile diseases. I am perfectly aware of their danger when they are unskilfully employed ; but I am also of opinion, that children are not unfrequently bled and purged for the purpose of relieving great irritability, when much advantage might be gained by the judicious application of sedatives, under restrictions to which I have before adverted. In some cases, where the convulsive breathing and violent action of the diaphragm were very great, friction upon the chest with a liniment composed of laudanum, spirits of camphor, and soap liniment, three or four times a day, has certainly proved useful. I have seen blisters applied by other practitioners. I have never known them afford relief, and sometimes they have added considerably to the general irritation and sufferings of the child. During the paroxysms of convulsions, which are so frequent in the course of this affection, the same treatment will be required as that which has been already detailed for the more simple form of convulsive affections. It has been stated that the attack generally commences the moment the little patient wakes from its slumbers ; and even after the more severe symptoms have passed off, we shall still find the child rising from its sleep with short and convulsive breathing, and with an appearance of much agitation. These slight remains of the affection may continue for several months ; and in more than one instance I have known the attack return with all its original severity, in consequence of the child being suddenly awakened either by accidental noise or the imprudence of the nurse. It is of consequence, then, that every child who has suffered from this malady, should be roused from its sleep with gentleness and caution. The same precaution, indeed, is equally necessary in every form of nervous and convulsive diseases, more particularly those which affect the easily excited constitutions of infants and children.”

We need not, in conclusion, pronounce a formal judgment on this volume of Mr. North's : the length of our article, and our sentiments interspersed through it, will bespeak our opinion of its importance : it is plain, concise, and practical ; bears testimony to the author's ingenuousness and discrimination ; and, altogether, appears to be the result of much patient observation, reading, and reflexion.

X.

Quarterly Periscope
OF
PRACTICAL MEDICINE;
BEING
The Spirit of the Medical Journals,
Foreign and Domestic ;
WITH COMMENTARIES.



TO THE PUBLIC.

TIME has only confirmed us in our anticipations respecting the importance of this department of our Journal. Every year we have been obliged to enlarge its boundaries—for this good reason, that every year has multiplied the sources whence its materials spring. Periodical publications in literature, arts, sciences, and medicine, appear, like Aaron's serpent, to be swallowing up all other modes of circulating knowledge. But this multiplicity of Medical Journals, unavoidably brings into the market a prodigious glut of unprofitable wares, which imperiously demand an eclectic Periscope, for the purpose of separating the wheat from the chaff. The labour is great, but the results are of vital advantage to the general body of practitioners, no individual of whom, could possibly come at such a concentrated mass of information through any other channel than that which we have constructed. The utility—the absolute necessity, of such a department is now so universally acknowledged, that we need say nothing farther on that point—but we deem it only bare justice to ourselves, to state that we give, in each Number of our Journal, between 60 and 80 pages of letter-press, in small type, (a moderate volume in the year) beyond the ratio and proportion of price, as charged by other Journals, quarterly or monthly. This sacrifice we cheerfully make, and beg it to be considered, not as a mark of generosity, but of gratitude. The patronage of the public has enabled the Journal to bear this increase of expense, and it has stimulated the conductors of the Periscope, to willingly undergo this addition of labour.

From Europe and America, new Medical Journals are daily pouring in upon us, and, notwithstanding all the latitude which we have given to this department of our work, we find it difficult—sometimes impossible to keep even pace with the tide of periodical publication. This consideration, however, shall not induce us to deviate from the plan which we have hitherto pursued—that of making each Periscope article com-

plete in itself, rather than that of spreading before the reader a longer list of titles, and leaving him to seek satisfactory information in sources beyond his reach.

In our commentaries, it has been our object to benefit the reader without hurting the feelings of the writer—and the very few reclamations which have been made on our conduct, sufficiently prove that we have not been unsuccessful in this line of policy.

We beg, in conclusion, to inform our readers, that the extent of the *Periscope*, renders it necessary to commit that department to press about the middle of the quarter, in consequence of which, its *classification* under the various heads of physiology, pathology, &c. is unavoidably transferred to the table of contents, in order that we may be unfettered by an arrangement of this kind, while working off the *Periscope* in the course of the quarter. By this plan, the reader has all the advantages of the classification, while the conductors have an increase of facility in the management of the press.

ON THE DURATION OF HUMAN PREGNANCY.*

The trial which gave occasion to the present publication, excited considerable sensation in the world, and was a fertile source of gossip among both maids and matrons, for at least a fortnight, which is a much longer space of time than most wonders occupy in the present æra of human affairs. The medical witnesses, as usual, came in for their share of ridicule, and some of them called forth pretty general and sharp remark; but upon the whole, *they* ought henceforth to stand well with the ladies, for certainly their evidence, upon the present occasion, did not tend to curtail, but rather extend the *privileges* of that important class of society. We have always understood, that the wives of soldiers and sailors were allowed a greater latitude in respect to the duration of pregnancy than other females; but it appears that the decision, in the present instance, and the weight of medical testimony, have extended that prerogative to women in general, high and low, rich and poor.

As the investigation under review involves many important considerations, with respect to medical science and legislation, we think it will not be uninteresting or useless to put upon record, in the pages of this Journal, a concise statement of the case, and a brief view of the evidence given by the principal medical men cited before the august tribunal of the House of Lords.

In this record, we shall keep to the medico-legal question, and not advert to the history of the parties, which was amply detailed in the newspapers. There were two questions involved—what was the longest, and what was the shortest period of utero-gestation? That is, could it extend to 311, or at least 304 days?—and could a child, born two or three days short of five calendar months from conception, grow up to manhood. It is with the *former* of these two questions that we have to do.

* Medical Evidence relative to the Duration of Human Pregnancy, as given in the Gardner Peerage Cause, before the Committee for Privileges of the House of Lords, in 1825-6. With Introductory Remarks and Notes. By ROBERT LYALL, M.D. F.L.S. &c. &c. &c. 8vo. Sewed, pp. 104. Burgess and Hill, April, 1826.

Some of the principal accoucheurs of this metropolis were summoned to give evidence, besides a few of inferior note.

“Of the seventeen medical gentlemen examined, five supported the opinion, that the period of human utero-gestation was limited to about nine calendar months, from thirty-nine to forty-weeks, or from 273 to 280 days; or, if we strictly take them at their words, from 270 to 280 days; one of the witnesses, indeed, said from 265 to 280 days. These gentlemen of course gave their negative to the possibility, unless by miracle, that Henry Fenton Jadis, alias Gardner, could have been the product of a 311 days’ gestation.

“On the other side, of twelve medical gentlemen, who seemed to agree with respect to the above-mentioned period as the natural time of gestation; most of them maintained the *possibility* that pregnancy might be protracted to nine and a half, ten, or eleven calendar months, *and of course to 311 days, the alleged term of gestation*, at which the counter-claimant was born; and thus admitted the possibility that Mr. Henry Fenton Jadis, alias Gardner, might be a ten and a half months’ child: and they adduced a variety of cases, with a view of showing that their doctrine was founded on facts.” viii.

The calculations respecting the duration of pregnancy have been founded on several circumstances, but there are only two which we deem it necessary to notice—the cessation of the catamenia, and the period of quickening. As for certain sensations supposed to be felt at the instant of conception, we deem them totally unworthy of consideration. The circumstance of a single cohabitation would be the surest evidence no doubt, were there a sufficient number of instances, and these free from any suspicion of fallacy—but this is never likely to be the case.

Cessation of the Catamenia.—It is remarked by Dr. Lyall, that “the most usual way of calculating the time of pregnancy, both among practitioners, and by females themselves, is from the time of the disappearance of the catamenia.” This, we believe, is not the case—particularly among practitioners. The more general, indeed the only practical way, is to calculate from the middle of the broken period—that is, from ten days or a fortnight after the last appearance. This, in an average number, would be certain to come the nearest to truth. The more intelligent females calculate in this way—and all practitioners, we should imagine, would interrogate their patients on this principle. When females have unusually long or short intervals between the catamenia, it will, of course, alter the case, and must be allowed for accordingly. In respect to the question, can the catamenia continue after pregnancy? we have the authority of Denman, Hamilton, Burns, and others in the decided negative; while Haller, Heberden, Capuron, Francis, and several men of eminence have decided in the affirmative. It is highly probable, that menstruation during pregnancy is a very rare occurrence, and that the great majority of supposed instances are singular coincidences of hæmorrhage, either from the uterus or vagina. Dr. Lyall avers, that bloody discharges never take place during pregnancy, among the rude female peasants of Russia, except from accident. He also suspects that, in a state of barbarism, at least in a cold climate, women rarely become pregnant while suckling.

Quickening. It is needless to advert to the ridiculous doctrine, on which some of our laws are founded, that the fœtus acquires a new existence, or in fact begins to live at the period of quickening. Neither need we advert to the various explanations which have been given of the peculiar sensation of quickening—none of which appear satisfactory. All we know is this—that at a certain period the mother feels the motion of the child, and that the first

time she feels this, she has generally an accompanying sense of sickness, faintness, or other sensation that particularly arrests her attention, and leads her to record the event. The more important consideration is, what is the time of quickening? Denman says it happens from the tenth to the twelfth week after conception—but most commonly about the sixteenth. Puzos avers, that it sometimes occurs at the end of two months, but most usually at the expiration of eighteen weeks.

“ From the combined accounts of ancient and modern writers, and the evidence of a number of the witnesses who were examined in the Gardner Peerage Cause, it appears, first, that *quickening* takes place, in *different individuals*, from the tenth to the twenty-sixth week; and, secondly, that the *period of quickening* is pretty regular in the *same individual*; i. e. if a woman has quickened at the tenth, twelfth, fourteenth, or sixteenth week, with her first child, *cæteris paribus*, she will continue to quicken about the same advancement in all her subsequent pregnancies.” xv.

From what has been adduced, it is evident that the period of quickening can assist us but little in calculating the duration of pregnancy, since, at the very most, it can only apply to the individual case, and not to the quickening of other females. It is even very questionable whether the same individual always quickens at nearly the same period.

In respect to the *size of the abdomen*, it is quite absurd to attach any importance to this mark of pregnancy.

Examination per vaginam. Some practitioners (see No. 9 of this Journal, page 212) attach considerable importance to examination *per vaginam*, as a means of ascertaining the exact period of pregnancy. We have already expressed our opinion on this subject—an opinion which appears to coincide with that of Dr. Lyall. “ An examination in the earliest months of pregnancy can give but little conclusive information; and after quickening, or after the fourth month, it may inform us that a female is some months pregnant: in the after months of gestation it may assist our judgment considerably, but in no case can it alone indicate the *precise period* of pregnancy.” xviii.

Our author makes some pertinent remarks on Dr. Collins' case, as reported in our contemporary of the north, and entertains, with us, much doubt as to the patient having gone eleven months in a state of uterogestation. We agree with Dr. Lyall on another point—that the stethoscope promises but little aid in ascertaining the point under investigation.

The question, as to the duration of pregnancy, is certainly one of great importance, since it may involve the honour and happiness of families, the legitimacy of offspring, and the succession of property. It has been agitated for hundreds of years, and unfortunately, like many other physiological questions, it remains to this hour in an unsettled state. According to the common consent of mankind the mean term of pregnancy is nine calendar months, or about 40 weeks; at the end of which, labour comes on—not on account of any physiological cause which we can discover, but because it is the *command of God*, as was stated by a physiologist in the days of Avicenna. But, although Nature, or Nature's God, has fixed this period, as the mean duration of gestation, in the same way that the days of man are limited to three score and ten years, yet we see no reason in theory, why the period should not be transgressed in the one case as well as in the other. We know indeed that Nature is peculiarly tenacious of uniformity and accuracy in every thing that respects the *propagation* of the species; but still she is not infallible in her objects, nor invariable in the means of attaining them. In admitting this, we are perfectly convinced that nine in ten of the reported cases of protracted pregnancy would, if well sifted, be found to bear

the impress (as Dr. Beck expresses it) of vice or error. The evidence adduced in the Gardner cause, however, has tended forcibly to shew us that Nature will not be limited by the opinions of man—that she will not recognize human laws—that she often delights in secrecy, and indulges in whims and aberrations—and, finally, that she triumphs over the physiologist and philosopher, by the incomprehensibility of her works, and the demonstration of his own nothingness in the scale of her operations. We coincide with Dr. Lyall in the reasonableness of the following sentiments.

“ We agree, therefore, in opinion with those who say, justice requires that when pregnancy has exceeded the ordinary or legal term, we ought not to presume the illegitimacy of the issue, unless other circumstances warrant this conclusion; but we think it preposterous to maintain, in the present state of knowledge, that our legislation ought to accommodate itself to the deviations from the ordinary period of pregnancy, by allowing more time than it does, at least by precedent, to establish the claim of legitimacy, and consequently the right of succession in such cases. Before any important changes be made, legislators will naturally demand more positive information than any we yet possess: upon that being acquired, it is probable that some modification of the laws respecting legitimacy and succession might become necessary.”* xxiv.

In respect to the chief causes assigned for protracted pregnancy, we need say little. They have been considered as—aberrations of nature—hæmorrhages—mental emotions—and mechanical obstructions. These require no comment—and, therefore, we shall proceed at once to give some account of the individual evidence adduced in this celebrated cause.

1. *Mr. Charles Mansfield Clarke.* We shall avoid as much as possible the tautology of question and answer, and endeavour to give the sum and substance of the medical evidence in our own way.

Mr. C. considers 40 weeks the full period of a woman’s gestation, under ordinary circumstances—and afterwards, on cross examination,—“ forty weeks, I should say, is the extreme time.” He never, in his life, knew any one instance of a labour having been retarded beyond the period just mentioned.

* The following extracts on legitimacy, from Beck’s Medical Jurisprudence, may not be uninteresting in this place.

“ Although the decisions on the subject of legitimacy have occasionally been very extraordinary and loose, yet considerable uniformity exists in the laws of various countries.

“ The Roman law did not consider an infant *legitimate* which was born later than *ten months after the death of the father, or the dissolution of the marriage*. Such was also the French law prior to the revolution.

“ A case is said to have been decided by a majority of judges of the Supreme Court of Friesland, by which a child was admitted to the succession, though not born till *three hundred and thirty-three days from the day of the husband’s death*, which period wants only three days of *twelve lunar months*. The reader will find the details of this case, in Latin, by consulting Paris and Fonblanque’s Medical Jurisprudence. vol. iii, p. 219.

“ The Prussian civil code declares, that an infant, *born three hundred and two days after the death of the husband*, shall be considered *legitimate*; and a case has occurred where one born three hundred and forty-three days after the death of the husband was adjudged a bastard by the *legislative commission* of that country.

“ The civil code now in force in France contains the following provisions.

Mr. C. calculates the time from midway between the last menstruation and the one that would have succeeded, had not impregnation taken place. This is the gist of Mr. Clarke's evidence. It is founded entirely on his own personal experience; and is supposed to be rather too positive. Every man, however, who, like Mr. C. has had a very wide field for observation, is excusable for a certain degree of dogmatism on such occasions.

2. *Dr. Ralph Blegborough.* Estimates the period of human gestation at 39 weeks—"but forty weeks I consider the ultimatum." This statement is founded entirely on his own personal experience of 34 years. Dr. Blegborough is equally as positive on this point as Mr. Clarke; for he observes that he does not think it possible a female can go beyond 40 weeks in pregnancy. There is a portion of Dr. Blegborough's evidence, however, which deserves further notice in this place. When asked—"are there any books in your profession which are reckoned works of authority at all?" He answers yes; but adds—"There are very few men of very great eminence who have written books. Men who write books have seldom great practice: they are generally detailing the opinions of others, and not their own." A pretty compliment this to the luminaries of the profession, from Hippocrates downwards! Leaving the people of former days out of the question, is there a single eminent physician or surgeon in London, at this moment, who is not an author? And is Dr. Blegborough the only man of great practice in this metropolis? We consider the sentiment contained in the above passage as equally illiberal and unjust—to say nothing of its impolicy.

3. *Mr. R. R. Pennington.* Considers the usual period of utero-gestation as 40 weeks—never knew any one protracted beyond that more than three or four days—nor does he think it possible that pregnancy could be longer protracted—his reason for such conclusion is that—"from the effort of the uterus the woman and child would both die during the delivery." Mr. P. does not consider it possible that any agitation of mind, or any particular disorder could protract the gestation beyond the 40 weeks.

The child born in wedlock has the husband for its father. He may, however, disavow it if he can prove, that from the *three hundredth* to the *one hundred and eightieth day* before its birth, he was prevented, either by absence, or some physical impossibility, from cohabiting with his wife. An infant born before *one hundred and eighty days* after marriage cannot be disavowed by him in the following cases:—1. When he had a knowledge of his wife's pregnancy before marriage. 2. When he assisted at the act of birth, and signed a declaration of it. 3. When the infant is declared not capable of living. Lastly, the *legitimacy* of an infant born *three hundred days* after the dissolution of marriage, may be contested.

"It will be observed, that, by the last section, the child born after three hundred days is not positively declared a bastard, but *its legitimacy may be contested*. And Capuron, in remarking on this, observes, that it would probably be deemed legitimate, if no legal investigation should take place. The language of this law is also so put, that, in a contested case, all the learning of former times, and the innumerable cases related by medical jurists, might be brought forth to prove, that *eleven and twelve months* are possible, and even probable. I confess that I prefer the Scotch law, because it prevents this. It is concise and decisive. 'To fix bastardy on a child, the husband's absence must continue till within six lunar months of the birth. And a child born after the tenth lunar month, is accounted a bastard.'

The English law, on which our own (the American) is founded, does not prescribe a precise time. There are, however, some decisions which will show the ordinary course of adjudication."

4. *Dr. Robert Gooch.* Calculates nine calendar months—that is, for example, from the 25th March to the 25th December, as the period of utero-gestation. This is little more than 39 weeks. He thinks that 40 weeks exceed the usual term of pregnancy. Believes that it is sometimes a day or two more or a day or two less than this space of time. Thinks it quite impossible that pregnancy could be extended to ten calendar months. Dr. Gooch has been censured as casting, or, at least, propagating, an imputation on the veracity of medical men, on the authority of Dr. William Hunter. But we perceive that the imputation is directed to “men of science,” and not to medical men in particular. “Dr. William Hunter himself said, there was no class of men who were more in the habit of recording unfaithfully than men of science; he said “they lie like the very devil.” It is perhaps a pity that this quotation from Dr. Hunter should have been brought forward, but we cannot for a moment suppose that Dr. Gooch, who is a man of the most liberal sentiments, meant it to apply to medical men generally. There is no doubt that great error—much of it perhaps unintentional—has crept into medical records, and which gave occasion to the sarcastic remark of Cullen, that there were “more false facts than false theories in medicine;” but this, we think, by no means implies a stigma on the veracity of the medical profession.

4. *Dr. David Davis.* Would say that, as nearly as possible, the term of utero-gestation is nine calendar months—rather under than over this time.

5. *Dr. A. B. Granville.* We shall not advert to the long and minute examination which Dr. Granville underwent, respecting his own private history and medical education. We cannot see the reasons for this waste of time before the committee. Every man's evidence ought to rest on his own experience, without any very strict scrutiny where, how, and when, it was acquired. In respect to the question of pregnancy, Dr. Granville stated it as his opinion, that the ordinary period was embraced “between the 265th day subsequent to impregnation, and the 280th, or 40 weeks.” The most important part, however, of Dr. Granville's evidence was the case of protracted utero-gestation occurring in the person of his own lady. Mrs. G. passed, that is, *missed*, her menstruation on the 7th April—and on the 15th August following, she quickened—that is, four months and six or seven days afterwards. In the early part of the first week in January, her confinement was expected, and a medical friend desired to hold himself in readiness to attend. Labour pains came on, but soon after subsided, and Mrs. G. went on till the 7th February, when labour returned, and delivery was speedy. The child was stronger than usual—was large—and was considered by Mrs. G. as well as by himself and Mr. A. T. Thomson, as a ten month child. Calculating conception then from the day before the *interruption*, (the latest that could be assigned) we should have a case *prima facie* of 306 days from impregnation to birth—but taking it at the middle period between the last menstruation and the interruption, we would have a case of 318 days.

Dr. G. knew a case of 285 days—of 290—of 300—and 315 days; but, in the last case, there was some doubt in his mind respecting the accuracy of the woman's statement.

6. *Dr. John Conquest.* Presumes the majority of cases are completed with the termination of the ninth calendar month—“but unquestionably, I have met with some cases which have far exceeded this date.” Dr. C. took great pains in the investigation of two or three cases—“one woman was certainly pregnant *for, at least, ten months.*” One of these cases we shall quote.

“ The case to which I refer is that of a woman who has borne six children. She is a woman possessing an unusual share of good common sense ; and she engaged me to attend her during her second confinement before the period of quickening ; she also engaged her nurse. She felt so confident that she should be confined at the anticipated time, that she had her nurse in her house ; and it was not till the expiration of nearly *five weeks* from the time at which she expected to be confined that she was delivered, and delivered of a child of an unusual size. *At that time I disbelieved all the cases which I had previously heard ; I had been in the habit of laughing at them as a public lecturer ! but so strong was the evidence, from the most minute investigation of this case, that I was compelled to admit the accuracy of this woman's statement, and my former convictions were very much shaken.* The same thing occurred to this woman at her subsequent confinement : she exceeded the time then, certainly *four weeks* ; she has since borne three children at the expiration of the ninth month ; the three last children have been considerably smaller than the two intermediate children.” 41.

In a note on Dr. Conquest's evidence, Dr. Lyall informs us that Dr. Hamilton, of Edinburgh, in his lectures, admits that, should a mother have an unexceptionable character, a decision ought to be given in her favour, though the child should not be produced till near *ten calendar months* after the absence or sudden death of the husband. In his own practice, however, he states, that he never knew a woman go beyond the eleventh menstrual period. Dr. C. underwent a long examination and cross-examination, but we do not deem it necessary to enter farther into the Doctor's depositions.

7. *Dr. Merriman.* Considered the “ordinary time of utero-gestation certainly about 40 weeks, or 280 days.” In some cases he knew it to be extended to 285—in two or three instances, to 296—in one, to 303—and, in one, to 309 days. Upon the whole, he judged that the protracted gestation which was the object of investigation, was possible. For the particulars of some of these cases we must refer to Dr. Lyall's pamphlet.

8. *Dr. Hopkins.* Stated the ordinary period of pregnancy to be about 280 days. He knew this period exceeded “in one most positive case.” When this most positive case, however, was sifted, we confess that it appears to us a very inconclusive one.

9. *Dr. Blundell.* Had personal experience of one case of utero-gestation being protracted beyond the ordinary time. The lady became pregnant on the 9th November, and she was delivered upon the 23d of August following. This was only 287 days ; and there is no positive evidence to shew that the lady then exceeded the natural period by seven days ; the case is inconclusive.

10. *Dr. John Power.* Believes, from what he has seen, that the period of utero-gestation may be protracted beyond the term of nine calendar months—that it may be extended to *eleven* calendar months, if not longer.

Several female accoucheurs were examined, but we do not see any necessity for introducing their evidence here. Our readers will perceive that, upon the litigated question of protracted utero-gestation, there was nearly an equal balance between the male part of the more eminent witnesses—to which part alone we would be inclined to attach any importance. Every one will be able to judge for himself respecting the part which he may feel disposed to take in this question. Without having any positive facts on which to ground our own opinion, but only the statements of females, and the conclusions of medical practitioners, we are inclined, as we said before, to admit the occasional, though very rare, aberration of Nature in this as in many other of her important operations. If she can bring forth a monster, with scarcely human shape or form, we see no reason why she should not occasionally accelerate or delay the usual evolution of the foetus.

OBSERVATIONS ON CATARACT.*

That morbid change in the organ of sight, which consists in opacity of the crystalline lens or its capsule, and to which the name of cataract has been applied, belongs, both by its situation and by the causes which give rise to it, to the class of internal disorders. The remarkable want of success, which has hitherto attended all attempts to remove it by medical treatment, has, however, universally transferred the management of it to the hands of the surgeon. It must be acknowledged, that the operations for the cure of this affection have, of late, attained a high degree of perfection, and that a proportionate number of striking cures has been the result. It could be wished, notwithstanding, that a combined practice might be directed against this malady, which frequently becomes the cause of one of the most trying infirmities of age, and occasionally is met with in the earliest periods of life.

The author, in treating epilepsy and mania by cauterization of the head, had had occasion to notice a remarkable improvement in amaurosis and cataract, in cases in which they happened to co-exist with the affection, which formed the principal object of attention. The observation appeared perfectly admissible, for there is no more difficulty in conceiving the removal of the physical cause of amaurosis or cataract, than that of mania or epilepsy.

The result of the author's experience with respect to amaurosis, was laid before the Institute in a former paper, and the attention which that received encouraged him in the prosecution of the researches detailed in the communication now before us.

In seeking to apply to cataract the treatment which he had adopted in chronic affections of the head, and in gutta serena, Dr. Gondret soon found that his facilities for experiment were much less considerable. The cases of amaurosis which presented themselves were numerous, because this affection is frequently abandoned as hopeless, but operation being the generally received method of treatment in cataract, it was not till after long waiting, that a few almost accidental opportunities occurred for the trial of a practice, which he conceived equally applicable to this, as to other affections of the eyes or brain.

He carefully noticed the facts as they occurred, and waited until he had accumulated a number of analogous results, before he considered himself warranted in drawing any thing like a general conclusion.

The seat of the derangement was particularly favourable to these researches. The existence of cataract becomes obvious long before it has arrived at an advanced stage, and it is well known, that surgeons generally wait to perform the operation for its cure, until the opacity of the lens and loss of vision are complete. Other internal affections are materially different. A direct examination cannot be made, and the diag-

* Being the subject of a Paper read to the French Institute, by L. F. Gondret, M.D.

nosis is necessarily less positive, being rather the result of induction than of the immediate evidence of the senses.

As a guard against the possibility of his too hasty admission of facts in support of his own views, Dr. Gondret made his observations in conjunction with several of his enlightened professional brethren, who would not have failed to warn him, had he been falling into error.

He took particular care not to be misled, by mistaking an apparent for a real cure, as is often unavoidably the case, where the practitioner too soon loses sight of his patient. He saw the necessity of continuing the observations as long as possible, and did so for months, and even years.

1st Case. M. Pepin, aged 59, of a good constitution, but of rather a nervous temperament.

After a forced march, in the year 1816, he was attacked with severe fever, accompanied by intense head-ache and delirium, and followed by a general swelling of the limbs. During his convalescence, he perceived, for the first time, a black speck, which seemed to dance between his right eye and the objects which he looked at. Six months after, a cloudiness, the precursor of cataract, presented itself in the left eye. In the winter of 1819-20, he experienced, during the space of a month, the most exquisite pain in the right temple: this was succeeded by inflammation of the left eye, which was relieved by leeches. In January 1822, the pains in the right temple returned with great severity, but ceased by the use of an opiate pill. In April, Pepin consulted Dr. Gondret. At this time, he could see nothing with the left eye, in which the cataract had now existed four years. A grey spot in the centre of the crystalline lens indicated the commencement of cataract in the right eye also. He was unable to read, for more than a short time, without fatigue. The floating spots which he perceived with the right eye were become more numerous, the pupils were rather dilated, and the irides almost fixed.

Dr. G. considers, that the malady, with which Pepin had been attacked six years previously, as already mentioned, was the principal cause of the derangement of the visual organs:—that the brain, in the first instance, becoming affected, an extension took place, producing—

1st. Numerous filaments, and approach to opacity of the crystalline, with feebleness of vision in the right eye.

2ndly. Complete cataract of the left eye.

3rdly. Pains in the right temple.

4thly. Inflammation of the right eye.

Continued application at the desk had, doubtless, favoured the progress of the complaint.

Guided by experience of the excellent effects of a local treatment in some of the several affections of the brain, even when congenital, Dr. G. was induced to propose to his patient cauterization of the *sinciput*, as offering the most favourable chance of relief. He hoped to arrest the progress of the cataract in the right eye, and to render the parts more susceptible to the influence of other agents which, whether local or general, might favour the restoration of the organ to its natural state.

On the 4th of April, the cauterization was performed with ammoniacal pomade.

On the 22d of May, the cloud which had seemed to cover the right crystalline was become less, apparent vision was a little improved, but filaments still remained. An electric current, produced by a voltaic trough of thirty plates, was passed between the right supra-orbital nerve and the right eye. An immediate, but momentary, improvement of sight was the consequence; the nerves, however, continued to feel the shock till the following day.

June 1st. The right eye was perfectly clear, and vision increasingly strong.

July. The cloudiness of the right crystalline was returning, and vision was a little more obscure. The ulceration at the sinciput was merely superficial, and was reduced to scarcely the third of an inch in diameter. It was then extended and made deeper by another application of the pomade.

August. No opacity of the right crystalline. The sight continues constantly good. The cataract in the left eye had changed from a dead white to a grey colour.

June, 1823. The right eye is in its natural state, and vision is good. The left crystalline approaches more nearly to a greyish black, but that eye merely perceives the presence of light.

August, 1825. The cure is permanent with respect to the right eye. The cataract in the left is scarcely visible, but vision on that side has made no progress.

2d Case. John James Henriot, aged 71, affected with cataract in both eyes—the sight of the left eye gone; the cataract in the right less advanced, but very obvious; the sight of this eye sensibly impaired for several months.

October, 1822. The sinciput was cauterized with a red hot copper instrument, the patient having chosen the most painful, but at the same time the most expeditious method.

The sore was kept open four months, during which time an ammoniacal collyrium and galvanism were also employed: the bowels were kept open as far as possible by regimen, but when this failed, laxatives were made use of.

The opacity of the right crystalline gradually disappeared, and the sight of that eye became completely restored. The opacity of the left lens diminished, and there was some return of sight, but the improvement on this side was not permanent.

August, 1825. The patient has had no return of cataract in the right eye, with which he continues to see well.

3d Case. The Countess of Monchenue, aged 80, had impaired sight in common with other infirmities attendant on her advanced period of life. On the 11th January, 1823, on waking she discovered that she

was blind ; in the course of the day there was some return of sight in the right eye, but none in the left.

On the 27th, this lady consulted Dr. G. who found the conjunctiva and cornea dull in both eyes. The pupils were very much contracted, and there appeared to be some lenticular opacity. She could see only with the right eye, and that but at a very short distance. She could neither read nor write, distinguished colours but in a very confused manner, and imagined that she saw variegated flowers on a gown which was perfectly white. An oculist, whom she had consulted, recommended an operation, when the right eye should have become opaque as well as the left.

Dr. G. did not consider this case either complete cataract or amaurosis, but believed that the derangement was more general, each part of the organ bearing its share.

The case was recent, and not attributed either to apoplexy or cerebral plethora, both of which affections Dr. G. regards as leading to morbid changes in the eye, which, even when acute, are extremely difficult of cure.

The Countess readily consented to cauterization, which was effected by means of the ammoniacal pomade.

This constituted the principal part of the treatment, but other means were also had recourse to. Cupping-glasses were moderately applied to the neck : an ammoniacal collyrium and galvanism were made use of, and some laxative medicines given. This plan was followed up for four or five months.

After the first month, sight was restored in the left eye and improved in the right. The dulness of the conjunctiva, cornea, and anterior chamber, had disappeared from both eyes, and they had resumed a certain degree of brightness.

Towards the close of the treatment, vision was so far restored that the patient could discover the colours of objects, and could even read and write.

At the time the author was writing, this state of sight had continued for two years, although, as is worthy of remark, the other faculties had, in the mean time, been materially declining.

In this case there appears to have been imperfect cataract, complicated with opacity of the membranes, situated in the anterior of the globe, and with an impaired state of the nerves of the eye.

4th Case. Mrs. M. having large eyes and myopism from her infancy, had been for six months affected with amaurosis, which came on after measles, which she had when about six months advanced in pregnancy. Three months after delivery, she consulted Dr. G. who, at the time, observed no apparent organic change. The right eye was rather larger and more prominent than the left. The pupils were perfectly mobile. This patient had always been subject to ophthalmia. She was unable either to read or write, and being myopic, could not easily direct her steps. Cauterization of the sinciput, cupping, the ammoniacal colly-

rium and electricity restored the sight of both eyes, though less completely that of the left, which had long been weaker than the right. Mrs. M. seemed, for some time, to have even stronger sight than she had ever before possessed. As the lady had again become pregnant, Dr. G. thought it expedient not to continue the treatment longer than four or five months. In the spring of 1822, she set out for Switzerland, where she intended to be confined. The improved state of sight continued, though with occasional relapses, which were quickly relieved by the ammoniated collyrium and electricity. A short time after her accouchement, by exposing herself to wet and cold, she brought on ophthalmia, and vision was again impaired. A month after, she returned to Paris, and at that time was unable to see with the left eye, in which there was an obvious cataract—there was no trace of the kind in the right, though vision was much impaired on that side also.

Two months later, the treatment at first employed was again had recourse to—the sight of the right eye was restored, and this improvement has now continued permanent for two years, but, on the left, the cataract remains, and there is no return of vision.

The cataract was probably the result of the inflammation set up in the eye, but the patient's absence in Switzerland prevented Dr. G. from observing the relation which these two affections bore to each other. In less than two months the opacity of the crystalline and blindness were complete, and a course of treatment, persisted in for two years, effected no sensible change in that eye.

This case forms a striking contrast with some of the others which are related, particularly with that of Pepin.—In him, vision was deteriorated in the left eye, nearly three years before cataract commenced. Under the course of treatment, the lens changed its distinct white for an almost invisible grey; yet, the restoration of sight was confined to the mere perception of light, doubtless on account of the irremediable nature of the older affection.

Nearly a similar instance occurred in the case of M. Delcros. The patient had injured his eyes by application to books. His sight, already poor, became considerably weaker, in consequence of attacks of inflammation affecting the head and eyes. Symptoms of amaurosis and cataract led to the adoption of the mode of treatment employed in the former cases. The cautery of the sinciput produced a temporary diminution of the opacity of the crystalline; but the malady again resumed its progress, and blindness became complete.

5th Case. The Baroness A. of a vigorous constitution, and subject, from her youth, to an eruption on her face, consulted Dr. G. in June, 1823. She had, at that time, two well-marked cataracts, which were considered to depend on the opacity of the capsule of the lens. Regarding this as a case already too far advanced to give way to his plan of treatment, the doctor recommended an operation. To this the lady was much opposed, and resolved to bear with loss of sight rather than submit to it. Under these circumstances, Dr. G. consented to make the

experiment. The *sinciput* was cauterized with ammonia, but the Baroness constantly refused to be cupped, though the plethoric state of the head seemed frequently to demand the adoption of this measure. Vision, notwithstanding, had, in less than a month, begun to improve. At the same time, the opacity of the crystallines was manifestly diminished—the white below was changed for grey. Galvanism and the ammoniacal collyrium were then added to the former treatment. On either of these means being employed, the sight became clearer and stronger, and continued in that state through much of the succeeding part of the day. The patient frequently stated that she could see her way better, that she could distinguish persons more easily, and could even read, provided that the book was printed in a large type.

This state of things continued upwards of a year.

Towards the month of September, 18 months from the commencement of the treatment, symptoms of plethora shewed themselves about the head and face, but the patient, as before, was unwilling to submit to cupping, and leeches, applied to the anus, produced only partial relief. From that time dimness of sight continued to increase in the right eye. It had, previously, always been the weaker, and its crystalline had presented a greater degree of opacity—whiteness returned, and in the course of a few days rapidly increased.

In November, the left eye lost ground, and its lens became more opaque than it had been since the commencement of the treatment, which was thenceforth discontinued. She was advised to have recourse to operation. This was subsequently performed on the right eye by Roux, and was attended with complete success.

6th Case. The Princess of Broglie Revel, aged 60, had been affected for nearly 20 years with very severe head-aches.

The cephalalgia was frequently accompanied by vertigo, giddiness, and at times by an instantaneous loss of sensibility.

For several months she had found her sight obstructed by a sort of mist, which partially concealed the colour and size of objects—she was able to read and write, though with some difficulty, and but for a short time together.

There were traces of commencing cataract; but, in other respects, the eyes appeared sound.

Cauterization was proposed, as adapted both to the cataract and to the cephalalgia.

After eight or ten days' treatment, the head-ache and mist were removed—and opacity had disappeared from the lens.

Dr. G. then discovered a slight silvery whiteness deeply seated in the eye; he attributed it to some change which age had effected in the choroïd—there was no glaucoma.

The princess, relying too much on her strength of constitution, in spite of the caution which she received, neglected to defend herself sufficiently against cold and moisture.

Early in October, the Princess exposed herself in the rain. An

eruption appeared around the cauterized spot, and extended to the forehead, and did not leave the patient for three weeks.*

After a month's confinement to the house, this lady went on foot, on an unfavourable day, to pay a visit to Dr. G.

The effect of this exposure was highly injurious to her. Spasmodic movements of the limbs soon came on, sensation became perverted, and her tongue, without offering any change in its appearance, gave her the sensation of being dry and rough like a rasp. Every thing which she touched felt to her like parchment.

It should be remarked, that the Princess had always been subject to nervous affections.

A consultation was proposed by Dr. G. and Portal, Laennec, and Hervez de Chégoin, were called to see her in conjunction with him. The two latter, influenced by the account which the patient herself gave of the benefit which she had derived from the cautery, and conceiving that the existing symptoms were to be attributed to an affection of the spinal marrow, proposed that from time to time similar cauterization should be made along the course of the spine. This advice was particularly gratifying to Dr. G. who apprehended that the previous treatment had not been persisted in for a sufficient length of time to confirm the cure of the cataract. Portal did not meet Dr. G. until the evening: he was then disposed to temporise, and the treatment was consequently limited to a weak ammoniacal liniment, in conjunction with anti-spasmodics and bland drinks. Some degree of fever, notwithstanding, came on, and was accompanied by symptoms of gastric irritation, but these were removed by the use of a laxative. The spinal affection increased. In a few days the patient found difficulty in breathing and swallowing, and shortly after, contractions were observable in the extremities. The dyspnoea ceased on the production of vesication at the epigastrium, affected by means of ammonia. The professional attendants united in recommending that a current of electricity should be passed through the lower extremities. Experience having shewn that the epidermis affords some opposition to the introduction of the electric fluid, it was deemed advisable, as a preparatory step, to produce small spots of ulceration behind the head of each fibula and at the ancles. The electric current, introduced at these excoriations, produced an immediate cessation of the contractions. Two days after this single application of electricity, the patient complained of the inconvenience which she experienced from a sort of boil, situated at the upper part of the right thigh. It turned out to be an anthrax, which her physicians hailed as an admirable and salutary effort of nature. A few days dissipated the symptoms which had been two months in establishing themselves. Low diet was changed for the analeptic, and return of strength was further promoted by a visit to the country. Some time after, Dr. G. saw her

* On two other occasions Dr. G. has seen erysipelatous inflammation come on, either in the neighbourhood of the ulcer or on the face, in consequence of similar exposure.

highness, free from head-ache, in excellent health, with her eyes quite well. She undertook a journey to Copenhagen, where she continued to gain flesh and strength.

In August, 1825, the Princess had returned in good health to Paris.

7th Case. Madame Leleu, 66 years of age, on the 8th September, 1824, consulted Dr. Gondret on the recommendation of Dr. Dutrembley; Dr. Bessiere saw her at the same time; this lady had two cataracts of a blackish grey colour: she could only distinguish objects at a few feet distance. It seemed to her that she had before her eyes a thick fog, which became less dense towards evening; she could not find her way without difficulty: she described her affection as not being of more than three or four months standing.

The sinciput was cauterized with ammoniacal unguent, and cupping glasses were applied to the neck. In six weeks, the mist before the eyes had become less dense, vision was more distinct, and the cataracts had less opacity.

19th February, 1825. The patient no longer saw the mists of which she had complained, but filaments or specks seemed to play between her eyes and the objects which she was viewing; the cataracts could scarcely be distinguished.

In April, the cataracts were not to be seen, sight was good, but there were some relics of floating filaments.

8th Case. Sargent, aged 67 years, formerly a cabriolet driver, affected for seven years with deafness, which he attributed to having slept for several hours in his cabriolet, during a period of intense cold: his sight had failed him for a year previously to his consulting Dr. G. for the first time, on the 7th of October, 1824. The sight of the left eye was gone, the lens was white and very opaque. There was less opacity in the right eye, but vision with it was very weak, and at times wholly wanting. The occasional blindness seemed to depend on the conjunctiva which was in a state of chronic inflammation, attended with but little pain—it was red, and bathed with tears and mucus. The commencement of this ophthalmia had been attended with long-continued and intense head-ache.

8th October. The sinciput was cauterized with ammonia—cupping and ammoniacal collyrium were employed.

25th October. The conjunctivæ were less red and swimming. The sight of the right eye was stronger. That of the left appeared to have undergone a little improvement, and hearing, at momentary intervals, seemed to be rather less dull.

April, 1825. The right eye was free from opacity, and its vision was good, the chronic ophthalmia no longer existed. The opaque matter, in the left lens, appeared to be less homogeneous. The sight, which had been lost, was so far recovered, that Sargent could distinguish features, when seen in profile.

9th Case. Bourgenot, aged 50, a serjeant belonging to a corps at Bicêtre was attacked, on the 30th of August, 1824, with inflammation of the right eye, attended with pain, extending from the upper part of the orbit to the centre of the eye, which had totally lost the power of vision: he had also weight and pain of head. He was bled with the lancet, twenty leeches were applied to his neck, a large blister to the arm, and a seton was inserted at the nape of the neck.

On the 8th of December, the commander of the corps referred Bourgenot to Dr. Gondret. The sight of the right eye was quite extinct, the conjunctiva was inflamed and swollen with a sort of chemosis—but free from pain, the pupil was fixed and contracted, and cataract was very obvious: the sight of the left eye was constantly impaired by a thick mist, and was, at times, quite confused—there was an evident degree of opacity of the crystal which was of a grey white colour.

On the 9th of December the seton was suppressed, the sinciput was cauterized, and cupping-glasses were applied to the neck.

17th December. The mist had sensibly diminished, and was, at times, altogether absent: vision was more distinct: the patient, who for a long time had only been able to read with glasses, and but for a short time together, could now read much longer and without glasses.

August, 1825. The cataract of the left eye was almost imperceptible; vision was good on that side. On the right the conjunctiva was cured—the pupil was still contracted, but less fixed. The crystalline remained very visible, though it was less opaque and dense than formerly. The sight of this eye, which had been completely lost, had so far returned that the patient could perceive the countenances of persons, especially when looking out from the smaller angle of the eye, in which direction the crystalline was the least opaque.

10th Case. The next case shews the possibility of restoring vision after the operation of cataract has been performed without effect. Dr. G. had already brought it forward in a memoir on the use of actual cautery.

Leroi, a single lady, of 60 years of age, of a good constitution, after having been completely drenched in a storm, in June 1811, observed that her sight greatly failed. By the 24th July, she was completely blind, from the formation of two cataracts: the operation of extraction was performed, but without procuring any restoration of vision.

After seven years of blindness, Leroi consulted Dr. Gondret: she perceived a difference between night and day, but could distinguish neither form nor colour.

Her eyes were bright, the corneæ transparent, and presented, in each, a transverse white cicatrix, but it was the most marked on the right side—the iris was invisible in that eye; in that of the left, instead of a circular pupil, there was a vertical linear aperture, widest in the middle, where it was about half a line in breadth.

Dr. G. advised the lady not to use any treatment, but as she urged that something might, at least, be attempted, to relieve the constant vio-

lent head-aches, which aggravated her affliction in the loss of sight, he employed cauterization of the sinciput.

The next day the patient perceived the light better ; with the left eye she could even distinguish the face from the rest of the head : with the right eye she merely recognized the presence of light.

On the 25th of June, she could see enough with the left eye to find her way from place to place—the aperture in the iris had become oval—in the right, the iris was still invisible.

17th July. The patient went to the Hotel Dieu ; Dupuytren made an artificial pupil in the right eye—the aperture in the iris was of a triangular figure, having its largest angle upwards. From that time she was able to see with both eyes—went about alone, and could write, though she was unable to see the letters.

In August 1825, she could both read and write.

The foregoing are all the cases which Dr. Gondret has given in his Memoir ; he could have added many others, but in so doing he would only have been making a needless repetition. Those which he has related, warrant the attempt to oppose cataract by the same means which, on a former occasion, he recommended for the treatment of chronic affections of the brain and eyes. The probabilities of success must vary with the degree and complication of the affection. When the opacity of the lens is strongly marked, and vision is nearly extinct, the time for successful treatment may be gone by ; but, as the means proposed have always a tendency to improve the condition of the brain, eyes, and other organs, they may still be had recourse to, when the operation offers little hope of success, or as a preparatory step to that mode of treatment.

Practitioners will probably be the less disposed to reject these observations, when they consider that nature, in some very rare cases, effects a spontaneous cure of cataract.

An example of this kind was communicated to the author of the Memoir by Laennec. Something analogous may be remarked in the case of the Princess de Revel, in whom the spontaneous production of anthrax gave rise to the sudden disappearance of the symptoms dependent on the affection of the spinal cord.

A note is given from Magendie, who remarks that the observations of Dr. Gondret seem to afford an application of his own experiments on the fifth pair of nerves.

Why should we not, says Dr. M. by acting on these nerves, be able to modify the nutrition of the eye which is evidently dependent on the integrity of this pair—and, if the diminished action of these nerves lead to opacity, why should not their excitation lead to the removal of that state? We have nothing certain on this point, but the investigation merits the attention of physiologists and physicians.

We shall not attempt to offer many remarks on the Memoir of Dr. Gondret, which, being short, we have given almost entire. The mode of treatment which it is designed to recommend, is of easy application, and as, with the exception of a temporary sting on the application of

the ammoniacal pomade, the inconvenience to the patient is very trifling, few could object to it, were the prospects of benefit less considerable than those which the author of the paper holds out. The number of patients which we have met in the consulting room of Dr. Gondret afforded no slight presumptive evidence in favour of the efficacy of his practice. Its influence was particularly striking in a case of almost congenital amaurosis of long standing, and in other respects of a most unpromising character.

The prescription for the pomade is not given in the Memoir, but Dr. G. stated to us that it was made with very strong liquor ammoniæ, prepared under considerable pressure.

If the still equivocal virtues of acupuncture have any real existence, their influence in ophthalmic affections is probably analogous to that of Dr. Gondret's method.

Amongst the cases at the Hôpital de St. Louis, which were subjected to the examination of the Commission appointed by the Institute to investigate the subject, were several of affections, both of the internal and external parts of the organ of sight. Every remedy but acupuncture being excluded, the improvement was either complete or considerable, yet the treatment and the cure may not have been connected in the relation of cause and effect. The idea that they were so is in some degree supported by Dr. Sarlandrier's pamphlet on Electro Puncture, and on the use of Moxa and Acupuncture amongst the Japanese. It is not only stated that, in the East, the insertion of the needle between the skin and the cranium is recommended in ophthalmic affections, but that Demours, the oculist, has long employed acupuncture of the neck, and that Sarlandrier has adopted the same plan himself.

OPERATION FOR IMPERFORATE ANUS, AND TERMINATION OF THE RECTUM IN THE VAGINA.

In the January Number of Heckus, *Litheroische Annalen der gesammten Heilkunde*, for 1826, is a paper by Dr. DIEFFENBACK, a very intelligent and rising physician of Berlin, on Imperforate Anus: in which he recites a case where he performed the operation for the imperforate anus, complicated with cloaca with perfect success. The patient was a little girl about three months old, well grown for a child of her age, and appeared quite healthy. The external parts of generation were naturally formed, the anus was closed, and the fæces were discharged through a small opening about $\frac{1}{2}$ of an inch in diameter, in the upper and back part of the vagina. The operation for the removal of this deformity was made at two separate times. At the first, a curved director was introduced into the rectum through the opening in the vagina, and pressed downwards; a sharp-pointed bistoury was then introduced immediately behind the fossa navicularis, and carried towards the end of the director, but without cutting into it. This incision was extended near to the os coccygis, thus dividing the whole of the perinæum; and when the edges of the wound were separated, the extremity of the rec-

tum could be seen terminating in a cul de sac. The lower part of the gut was then separated carefully with the bistoury from the posterior surface of the vagina, slit open, and allowed to lie in contact with the sides of the first-made wound. The parts were, after the operation, treated with a cold lotion, and when the suppuration begun, with a tepid fomentation. The opening from the rectum into the vagina, after having been once touched with lapis infunalis, was perfectly closed. For fourteen days, during which time the fæces passed through the newly made wound, nothing unfavourable occurred, and the edges of the wound at the end of that time cicatrized.

In three weeks after the first operation, the second was performed, namely, for the purpose of forming a new perinæum. Drs. Meyer and Gedike of Berlin, and Messrs. Coulson and Spry of London, were present. The operation was begun, by further separating the anterior surface of the rectum from the vagina, and the sides of the extremity of the rectum, being already adherent to the sides of the former incision; when this anterior part of the gut was separated, it was drawn backwards quite distinctly four or five times by the already adhering parts. The edges of the fore part of the old opening were now cut off, so that they might unite by the adhesive process when brought into contact. The deeper seated parts were drawn together by a suture, the ends of which were cut off quite close, and the integuments by two small pins, similar to those employed in hare-lip, over which the twisted suture was applied, and thus were the parts effectually secured in contact, and a new perinæum formed. Immediately after the operation, the persons present had the satisfaction of seeing the fæces escape through the artificial anus which remained. A small bougie was introduced into the rectum daily, and the greatest cleanliness directed to be observed. On the fifth day, the suture and needles were removed; a complete union had taken place, and thus was the object of the operation, namely, the formation of an artificial anus with the closure of the opening into the vagina satisfactorily accomplished.

IMPROVEMENT IN THE GAUMENNATH* OPERATION, OR STAPHYLORAPHY.

The two difficult points in this operation are first, the slicing off the edges of the divided palate, secondly, the introduction of the sutures, and thirdly the difficulty of making the ligatures sufficiently secure when introduced. In the February Number of *HECKUS Annalen*, Dr. DIEFFENBACK has given a description of some instru-

* We want an English word by which to call this operation. As the operation is originally German, we have retained here the term Gaumennath, from *Gaumen* the palate, and *Nath* a suture, but this is not exactly the thing we want; we should not feel contented to call the operation in English the *Palatesuture*. Mr. Roux's name of staphyloraphy is not strictly correct, since *σταφυλή* means rather the *uvula* than the palate: Although it is evident that we should be justified by the precedent just stated in calling the operation the *Palatesuture*.—*Rev.*

ments which tend to lessen very much these difficulties. For the more ready excision of the edges, he proposes that a somewhat curved forceps should be used with their narrow blades the length of the usual division of the palate, and turned at nearly right angles with the arms of the instrument. With this forceps the edge of the palate is so taken hold of, and held sufficiently firm to allow of the slicing off of the edge of the palate projecting beyond the blades of the forceps, which is then to be carried a little farther back, and used as a compress to suppress the hæmorrhage during the introduction of the needles. These *needles* are only seven lines long, from the point to their middle a little curved and cutting on their edges, with their concave surface flat. The other half of the needle is perfectly round and hollow, into which extremity is worked a fine mother-screw. The ligature is made of *fine lead wire*, corresponding to the size of the round extremity of the needle, and capable of being worked into the screw contained in it. The advantages afforded by the use of this material for ligature are several; it allows of being tightened or loosened at pleasure, it allows of time during the operation of examining the mouth without becoming soft and almost unmanageable as the common ligature is when wetted, for with a scissors the end of the lead ligature may be cut off near the palate, the end twisted toward the roof of the mouth, and allowed to remain without inconvenience for a short time. The ends of the ligature are twisted slowly together after the approximation of the velum, and thus make the parts firm and secure. If, from a high degree of inflammation supervening, the swelling should be such as to require the ligatures to be loosened a little, it can be easily done, by untwisting the ends of the lead-wire partially. The chance of success is with this apparatus greatly increased.

An instrument has lately been invented by Dr. DIEFFENBACK of Berlin, for the division of strictures from within the urethra, which cuts from behind forwards. It is a concealed knife, having three blades enclosed in a small cylinder, and separated by touching a spring left in the handle. The cylinder containing the cutting instrument is passed through another and graduated catheter to the stricture, it is then pushed forwards through the stricture, and when the extremity reaches beyond it, the blades are opened, and the stricture divided as the small cylinder is withdrawn toward the lower orifice of the greater, and then the blades are again shut. Dr. D. says that it is a quick, safe, and effectual manner of curing old strictures, when gradual pressure is afterwards employed.

BRONCHOCELE.*

As bronchocele, comparatively speaking, but seldom destroys life, a brief account of some fatal cases of this disease, as related by Dr. Malden, may not prove uninteresting.

Dr. M. observes that great danger results from any tumour on the

* Dr. Malden, of Worcester, Med. Repos. April, 1826.

sides of the trachea, on account of its compression by the sterno-cleido and other muscles of the neck, which from their frequent action are extremely liable to obstruct the respiration. Bronchocele may often be discovered by the difficulty of breathing, asthmatic paroxysms, &c. when it is not marked externally. When there may be visible only a general fulness, or lateral bulging of the neck, pressure on both sides will bring on wheezing or even a sense of suffocation, which will detect at once the deep-seated tumour. With regard to the question of how the impediment to respiration is caused, it is obvious that it must be principally from direct pressure, but in a great measure also from irritation.

Case 1. Mary Silsey, ætat. 18, entered the Worcester Infirmary, June 19th, 1819. Her respiration had been difficult for more than a year, but was of late much worse; she had constant wheezing, slight cough, with, at times, a little mucous expectoration; pulse small and quick. The tumour extended, on the left side of the neck, from the angle of the jaw down to the sternum, and had a firm and knotty feel; the carotid of that side was stretched behind it, and communicated strong pulsation to it—on the right side, the swelling was more even and not so large. Leeches at first gave relief; then blistering was tried; and finally a seton on the left side; but without effect—head-aches now attacked her; and in December she died, after a severe paroxysm of dyspnœa and head-ache.

Dissection. Thyroid gland much enlarged; the left lobe extended upwards, and under the muscles of the neck, which were on the stretch; it was very firm and adhered to a chain of white steatomatous tumours, of the size of hazel-nuts which passed down under the sternum, and terminated below the bifurcation of the trachea, half an inch of which was compressed, and its cavity nearly obliterated by the enlarged thyroid gland. One of the steatomatous tumours also caused considerable pressure on the trachea, at its bifurcation—this tube and the bronchiæ were filled with a colourless frothy fluid; mucous membrane sound; lungs healthy.

Cranium. The veins of the pia mater, sinuses, and jugulars full of blood; half an ounce of fluid in the ventricles; pons varolii much softened, and of a dirty yellow colour.

Remarks. Although in this case, steatoma was added to the bronchocele, yet the latter certainly made most pressure on the respiratory tube. The gorging of the venous system of the head depended principally on the obstruction to the flow of blood in the internal jugular, and partly on the difficulty of breathing.

Case 2. Dec. 7th, 1821. Eliza J. ætat. 32, in the last month of her third pregnancy, was affected with bronchocele of several years duration, which had increased during both her former pregnancies, and very fast of late. It extended from the sternum to the jaw; the sterno-cleido muscles were stretched over it; the carotids were forced back and

felt pulsating on a line with the transverse processes of the cervical vertebræ; the superior thyroid arteries large, and beating with a peculiar thrill; dyspnœa extreme; the chin convulsively raised at each inspiration, which was stridulous; and the face anxious and suffused with blood. She died of gradual suffocation, Dec. 10th.

Dissection. The thyroid gland was much enlarged, passing deep on each side of the trachea and bound down by the muscles above-mentioned. When cut into, the tumour was not very firm; it was of a pink colour, and contained a thick gelatinous matter in innumerable small cells. *An inch and a half of the trachea was so compressed, as to be quite flattened on the sides, and to present in front a sharp edge: its mucous membrane was slightly inflamed, and filled with a muco-purulent fluid.*

Remarks. Bronchocele frequently attacks for the first time during pregnancy, and then its growth is rapid. If it has arisen before pregnancy, then, upon that taking place, its growth is often much accelerated, and, according to Dr. M., "though it greatly subsides after delivery, it never, without medical aid, resumes the size it had before the pregnancy of the patient, so that each succeeding pregnancy adds a permanent increase to the enlargement."

In young females, a bronchocele will suddenly grow very fast, and subside upon the establishment of the catamenia.

Case 3. Mr. ——— ætat. 50, short and rather stout, had been subject for many years to fits of dry cough, increased by exertion, and resembling asthma. Eight or nine years ago he observed a fulness in his throat, particularly on the left side, which increased as well as the dyspnœa and cough. August 10th, 1825, Dr. M. first saw him; his breathing was laborious, with loud wheezing; his position was that of an asthmatic, the shoulders being fixed, and the chest forcibly expanded: he had suffered thus for many weeks, and in these attacks the countenance became quite livid.

On the left side of the throat was found a tumour, firm and elastic above, softer below, reaching from the angle of the jaw to the clavicle and sternum, and forcing the larynx three quarters of an inch, or more, to the opposite side. On the right of the trachea was another tumour, smaller and moveable. Behind these enlargements the carotids were easily traced, giving them a strong pulsation. Towards the last, he was delirious at times, and on August 29th, he perished from suffocation.

Dissection. The left lobe of the thyroid gland was greatly enlarged, and consisted of several large cysts, containing a gelatinous substance of various degrees of consistence. This lobe passed into the chest as low as the arch of the aorta; and its lowest cyst, which contained an ounce and a half of a glairy fluid, was lodged between the innominate and left carotid. The internal jugular veins, par vagum, and carotid arteries were much pushed backwards; and three quarters of an inch of the trachea, just below the cricoid cartilage, were rendered nearly

impervious. The muscles above the tumours were stretched, and the cellular membrane, under the platysma, excessively dense and strong. The mucous membrane of the trachea and bronchi was somewhat inflamed: the lungs, heart, and abdominal viscera sound.

Case 4. Mr. —, of Kempsey, ætat. 17, had been subject to attacks of dyspnœa for four years, generally brought on by exertion. There was unusual fulness of the throat; and pressure made, at the same time, on both sides of the neck, brought on wheezing, dyspnœa, and distress. After considerable exertion, he was seized with a very severe paroxysm, since which the heart had pulsated with great force and frequency. Blood was taken from the arm; leeches repeatedly applied to the throat; the sulphate of magnesia given in small doses every four hours, with ten drops of tinct. digitalis. The symptoms of excitement soon subsided, and ten drops of tinct. iodinæ were given three times a day. Under this treatment the tumour soon disappeared, and with it the dyspnœa, &c. nor have they since returned.

Remarks. This case exemplifies the good effects of iodine in the early stage of bronchocele, as also the insidious nature of that complaint.

CICATRIZATION OF INTESTINAL ULCERS.*

It is only of late years that medical men have learnt the extent of Nature's powers in healing ulcerations of the internal surface of the intestinal tube. Our readers are aware that Dr. Latham, in his interesting Account of the Disease at Millbank, gave some examples of this important process, and in the writings of Petit, (of the Hotel Dieu) Andral, Jun. and M. Billard, the subject has been more fully discussed. We have not seen any cases where the mechanism (if we may use the expression) of the formation and healing of intestinal ulcers is so well displayed as in the Paper of M. Troillet. We shall here, therefore, introduce a succinct account of two cases elucidating this subject.

Case. Rose Guillon, ætat. 21, was carried to the Hotel Dieu of Lyons, on the 7th October, 1823, being the 9th day of her illness, presenting the following symptoms—flushed face—conjunctivæ injected—eyes watery—strength prostrated—tongue red at the sides, and greyish-brown in the centre—epigastrium painful—abdomen somewhat distended, and very tender on pressure—diarrhœa—pulse quick and small—skin dry and hot. *Eight leeches to the epigastrium, followed by blisters to the legs—mucilaginous drink—fomentations to the abdomen.* The disease advanced to the highest degree of intensity during the second and third weeks, but towards the close of the fourth, there was a sensible amelioration. The lips lost their fuliginous appearance, the delirium ceased, the countenance improved, the motions became more

* Dr. Troillet. Journ. Gen. de Médecine.

natural, the fever diminished, and was scarcely perceptible at the beginning of November. Some syrup of cinchona was now exhibited, and the patient having expressed a desire for food, some bouillie was ordered, but the nurse exceeded her instructions, and over-fed the patient between the 5th and 12th of November. Vomiting now came on—the epigastrium became painful—delirium was renewed—the lips became black—and the patient sunk on the 19th of November.

Dissection. Tunica arachnoides unaltered—slight injection of the vessels of the pia mater—brain and spinal marrow of a firm consistence. Nothing particular in the chest. *Abdomen.* Stomach and intestines distended with gas. The internal surface of the former was pale, with reddish streaks near the pylorus. There were some red points in the jejunum, which became more numerous in the ileum, particularly near its termination, where there were evident traces of ulceration for the space of 18 inches. Nothing remarkable in the large intestines.

The ulcerations were of an oval or round form, varying in diameter from six to ten lines, with fringed edges, and surrounded with a brownish circle, beyond which the mucous membrane was sound. Their surfaces presented the following marks of incipient, advanced, and complete cicatrization. Those in the *first* state were covered with a fine pellicle, transparent even after being washed or scraped with the scalpel. It was in some degree moveable on the subjacent cellular substance. In other ulcerations, where the work of regeneration was more advanced, the pellicle was thicker, slightly opaque in some parts of its surface, and amalgamated as it were, with the fringed edges of the sore. In those ulcers where cicatrization was nearly completed, the pellicle had acquired the thickness, the consistence, and the aspect of the common mucous membrane. In those parts where the healing process had advanced to the greatest degree, the fringed condition of the edges had entirely disappeared, the surrounding circle was of a faint colour, or in some places annihilated—and the mucous membrane was completely regenerated. These regenerations were more numerous at the upper part of the ulcerated portion of ileum. As the valve of the colon was approached, the whole surface of the intestine became altered in structure, crowded with ulcerations, and presenting but few marks of cicatrization.

Case 2. Ph. Delorme, aged 23 years, caught cold while travelling from Paris in a diligence. He became unwell, and about a fortnight afterwards (7th December, 1823) was received into the Hôtel Dieu, of Lyons, with the following symptoms: flushed face—general debility—cephalgia—tinnitus aurium—insomnium—tongue white in the middle and red at the sides—epigastrium painful—diarrhœa—pulse quick—hot skin. *Diluents—low diet.* 8th, Belly painful and distended—diarrhœa troublesome—pulse hard and resisting. *Venesection to 15 ounces.* 9th, The same symptoms. 10th, Violent colicky pains and urgent diarrhœa. Eight leeches to the abdomen. 11th, Pain and distention of the abdomen abated. 12th, The same. 13th, The abdominal pains persist. *Ten leeches to the abdomen, followed by fomen-*

tations and poultices. Mucilaginous drink. 14th, The symptoms were ameliorated, but the fever had a marked diurnal paroxysm from this till the 18th. *Two grains of the sulphate of quinine were ordered per diem.* 20th, The patient is better—the diarrhœa has ceased—and strength is returning. 29th, The patient can walk about the hospital, and took an opportunity to indulge his appetite freely. The consequence was a violent accession of fever, and the abdominal pains returned. The fever and other bad symptoms continued during the following days, with swelling of the abdomen and dysenteric purging. 2d. January, delirium came on. He lingered till the 7th, when he died.

Dissection. No appearance of disease could be seen in the head or in the chest. The mucous membrane of the stomach was pale. The small intestines presented few traces of ulceration till they reached the lower part of the ileum, and there the morbid alterations existed in various degrees, which it is important to detail, as exemplifying the progress of these diseased conditions.

1^{mo}. In the points which were merely inflamed, the mucous membrane was tumefied, red, softened, and presenting certain fungous spots of three or four lines in breadth. 2^{ndo}. In the centres of some of these fungous spots there appeared dark specks as if caused by the effusion of a minute drop of blood from a vessel. 3^{ia}. In the centres of others were seen a minute speck of ulceration, surrounded by a small black circle, and penetrating through the mucous coat. 4^o. In other places, and especially in the lower portion of ileum, the ulcers were larger, extending to 8 or 10 lines in diameter. They were surrounded with a dark areola, and this areola was again encircled by a red halo. These ulcers, whose edges were perpendicular, were of a pale colour, and did not appear to go below the mucous membrane. The greater number of them were covered with a fine pellicle, in some transparent, in others opaque and thickened, in others still, appearing quite regenerated into mucous membrane again, but yet encircled with a diminished halo of a dark colour.

Remarks. In both of these cases Nature seems to have unveiled her mode of proceeding in the *regenerative* process—in the second case the process of the *formation* of the ulcers is developed. But what is the cause of these ulcerations in the intestines? Inflammatory irritation, most people will answer. Yet we see great inflammation accompanied by great irritation, without any such effect being the result. Again we see aphthous ulcers in the mouth and throat, where the membrane is pale, and where there is no appearance of inflammatory action. M. Troillet observes, however, that the effects of irritation differ greatly in the different structures of the body. In the nutritive absorbents it produces disorganization—ulceration. In the exhalent absorbents, on the other hand, it produces morbid growth and tumours. These considerations, he thinks, explain the formation of ulcers in the intestines, without the necessity of actual inflammation in the parts. He doubts not, however, that inflammation sometimes accompanies the ulcerative process, as well

as the growth of tumours. This takes place when the irritation is not bounded to the nutritive absorbents, but is extended to the nervous and capillary structures. In many instances, however, there is no evidence of inflammation, as in the cases under review, and in numerous morbid growths in other parts of the body.

We do not deem it necessary to detail M. Troillet's theory respecting the healing of intestinal ulcers. It is sufficient for our present purpose, that the fact of their healing is completely established by these and other instances. The fact, we conceive, is a very interesting one, and we are obliged to M. Troillet for the minute detail of the cases in this paper.

HOSPITAL REPORTS.*

Dr. Carter continues his reports in a most candid manner, by which he, at once, renders them useful, and gives them the best voucher for authenticity.—We shall extract a few particulars from his last report.

1. *Epilepsy.* Five cases of this complaint are given, from which it would appear that tartar emetic externally applied has been a very efficacious remedy.

Case 1. A lad, aged 14 years, had been affected with epileptic fits for ten years, and averred that, during that time, he had never been a fortnight free from them. Nothing was ordered but the tartar emetic ointment to be rubbed on the left arm, with a common laxative occasionally. The eruption was kept up, more or less, for nearly three months, and he never had a fit or any threatening of one. Discharged cured.

Case 2. This was also a lad of 15, who had had epilepsy for seven years, the fits latterly becoming very frequent, and sometimes recurring several times a day. He used the ointment, and took ol. terebinth. thrice a day, in doses of 25 drops. He was not cured, but the fits were rendered so bearable, that he was able to pursue his usual avocations.

Case 3. This was a young female, aged 16 years. The disease was recent. She had been bled and purged freely, but without much benefit. Her appearance was plethoric, yet the circulation was very languid, extremities cold, bowels costive. She was ordered a dose of calomel and antimonial powder, after which the ointment was to be applied to the left arm, and she was to take Griffith's mixture. For nearly two months, during which the sore on the arm was open, she was almost free from fits; but no sooner was the sore closed than the epilepsy returned. The ointment and steel medicine were again renewed, and she had no fit for three months, when she was discharged.

* Dr. Carter, Physician to the Kent and Canterbury Hospital.—*Repos.* April, 1826.

Case 4. A labourer had had sub-acute hepatitis, which was removed by local and general bleeding, mercurials, and saline purgatives. After this, he became affected with epileptic fits, to which he had not been previously subject. Tartar emetic ointment was applied to the arm, and leeches to the temples. The epileptic fits did not return.

Case 5. A woman, aged 21 years, was admitted on the 14th January, the fits recurring at uncertain intervals, apparently in consequence of a blow she had received on the nucha, about a year previously. The longest interval was eleven weeks. She had an epileptic fit in the hospital on the 22d January. On examination, some tenderness was perceptible in the site of the blow. Leeches were, therefore, applied, and aperients were prescribed. The antimonial ointment was applied to the shaven occiput. She appears to have been cured.

The remedy in question deserves, at all events, to be employed as an *auxiliary*—we fear it will not often be found to permanently cure the complaint, as the *principal*.

II. Bronchocele. Four cases of this complaint are detailed by Dr. Carter. In the first case, the disease was of two years standing, in a female, and the circumference of the neck was 16 inches, the tumour being hard, the respiration impeded and the voice altered—general health good. She used the iodine ointment for a month, and took six drops of the tincture thrice a day, without any impression being made on the tumour. A blister was then applied, and the dose increased to ten drops. She also took a mercurial pill occasionally. The ointment was again employed in increased quantity. The tumour became stationary, whereas it had previously been gradually augmenting. The dimensions of the throat were reduced $2\frac{1}{2}$ inches, and the tumour was rendered softer; but no farther impression could be made on the complaint.

Case 2. A married female, aged 31. The bronchocele had existed for several years, but latterly it had increased much. The throat, on admission, measured $15\frac{1}{2}$ inches. She was in bad health. The iodine ointment was used for a good while; but the tincture could not be borne beyond a week. Leeches, blisters, and other means were also used. At the expiration of two months there was scarcely any impression made on the bronchocele; but in the course of the succeeding two months, the tumour was sensibly diminished, and ultimately the circumference of the neck was reduced 1 inch and $\frac{3}{4}$. There was perceptible wasting of the mamma in this case, during the use of the iodine ointment.

Case 3. A girl, ten years of age, had a neck 12 inches in circumference. In 27 days, during which she used the ointment, there was a diminution of one inch. The bronchocele ultimately vanished entirely under the remedy.

Case 4. A girl aged 17, had bronchocele for some years. The tumour had increased rapidly since she attained the age of puberty. Circumference of the neck 18 inches—great fulness and pain of the head—troublesome dyspepsia—difficult respiration. The iodine ointment produced no effect till after the application of leeches and a blister; then the ointment began to tell on the disease, and the tumour was ultimately considerably reduced in size. She was discharged not quite cured; but greatly relieved.

III. Paralysis from Cold. A lad had been exposed to wet and cold, and in that state sat in his wet clothes. This was succeeded by complete paralysis of the lower extremities, difficult micturition, and torpid bowels. No fall nor other accident had occurred, nor could any affection of the spine be detected. Leeches, purgatives, and stimulating liniments. Half a drachm of oil of turpentine was also ordered thrice a day. These means were reiterated, but no impression was made on the complaint. Caustic issues were then inserted, and the medicines continued. No sooner had the issues begun to discharge, than a manifest improvement took place, and continued progressive till the use of the lower extremities was completely recovered.

IV. Obstinate Vomiting. This was a curious case, on more accounts than one. The patient was a female, aged 24 years, who applied on the 26th August, 1824, complaining of vomiting her food soon after it was taken, attended with burning pain at the pit of the stomach and between the shoulders. This state had continued for two years. The pulse was frequent and feeble, tongue clean, bowels constipated, catamenia regular. There was tenderness about the scrobiculus cordis, anxious countenance, palpitation—considerable and progressive emaciation. She had been bled, blistered, and had taken various remedies, but without effect, and Dr. Carter also prescribed different medicines without making any impression on the complaint. He then tried an old remedy, the extract of calendula or marigold, in doses of three grains every three hours, all other medicines being laid aside. This produced almost immediate cessation of the vomiting. Pain, however, continuing in the region of the stomach, leeches were, from time to time, applied, and the bowels kept moderately open. The patient gradually improved, and gained flesh and strength. She was ultimately discharged cured.

Dr. C. had his attention directed to this medicine from a notice in a foreign journal, where its efficacy was stated in scirrhus and cancer. Upon giving the medicine, the vomiting ceased, and did not return for three months, the time she was under observation. Should any one be inclined to attribute the cure to the leaving off all other remedies, Dr. C. observes that this was done before, but without the same effect. The calendula is a medicine of ancient, though of almost forgotten, reputation. It seems to deserve a trial in chronic affections of the stomach. In a case of organic disease of the uterus, our author exhibited the calendula, with the effect of mitigating pain and lessening the discharge.

The preparation was an aqueous extract of the flowers, and was furnished by Mr. Battley. About a pound of the flowers produced an ounce of the extract.

V. Apparent Phthisis. C. Merit, an upholder, aged 25 years, was admitted on the 10th August, having been ill for some weeks with "strongly marked symptoms of pulmonary consumption." There was also a scrofulous enlargement of one knee. One of his brothers had died of mesenteric consumption. Under such circumstances, the prognosis was unfavourable. An issue was made in the left side—infusion of roses acidulated, and the sulphate of quinine were ordered, with tincture of digitalis. Five grains of the styrax pill were given at bedtime. Leeches were applied occasionally to the chest. By these means the pulse was brought down to its natural standard—the harassing cough abated—and the expectoration, which had been copious and purulent, became less in quantity and of better quality—in short, before much time had elapsed, "the symptoms of disease of lungs, and the affection of knee were almost entirely gone." But he was annoyed with a troublesome diarrhoea, which obliged our author to discontinue the medicine first prescribed, and to order chalk-mixture with laudanum, &c. He was ultimately discharged apparently cured, and resumed his employments.

We regret that Dr. Carter has omitted to mention the result of auscultation and percussion in this case; as we think there can be little doubt that the disease was confined to the mucous membrane of the lungs, and that the expectoration did not come from the parenchymatous structure.

We thank Dr. Carter for these contributions to practical medicine, and sincerely wish that his example may soon be followed by the medical officers of other similar institutions.

CASE OF DIFFICULT PARTURITION.*

Numerous are the difficulties which occasionally attend the parturient state, especially in this advanced æra of civilization. The case which Mr. Jackson has detailed was a very puzzling one, and the true nature of the phenomena were (fortunately) not unravelled by the scalpel. A young married woman, had been six hours in labour with her second child, when Mr. J. saw her. He found the concavity of the sacrum completely filled by a soft tumour, which was situated behind the rectum, and pushed both that and the vagina against the arch of the pubes. What was to be done? The tumour could not be punctured, except through the posterior parietes of the rectum, which Mr. J. was unwilling to injure. By great exertion a foot was brought down along the side of the tumour, and ultimately the body—lastly, but with extreme difficulty, the head. The day but one after delivery, the bowels

* W. Jackson, Esq. of Sheffield. Repos. March, 1826.

were obstructed, and the urine could only be passed with great difficulty. On examining the rectum, Mr. J. ascertained a very perceptible fulness and fluctuation between the anus and os coccygis. A lancet was, therefore, pushed in about an inch from the latter: this was followed by about six pints of a limpid straw-coloured fluid, and succeeded by a most agonising pain in the head, which was relieved by the recumbent posture. It was necessary to repeat this operation many times; and, at one period, the woman's life appeared in great danger, as the slightest pressure caused severe suffering along the dorsal vertebræ. The fluid discharged about this time also, was of a deep brown colour, and tinged with blood. She complained of a numb sensation in the lower extremities, with heat, thirst, and quick pulse. Leeches were applied along the spine, and other antiphlogistic measures were pursued. Notwithstanding these formidable phenomena, a healthy condition of the parts was ultimately re-established, and she has since borne a child without difficulty.

It is hard to say what was the origin or precise nature of this complaint. Dr. Denman appears to allude to something of the kind, under the term "dropsy of the perineum;" but this is a vague expression. We are inclined to agree with Mr. Jackson in supposing the fluid to have come from a diseased ovarium.

DOTHINENTERITIS—NEW THEORY OF FEVER.

Well might Cicero say—"opinionum commenta delet dies." What part of the body will escape the honour, or rather the opprobrium, of being the seat of fever? We shall see in time! Certain glandular bodies, which have been described by Haller and others, but particularly by Peyer, occupying the small intestines: more numerous in the neighbourhood of the ileo-cæcal valve, and spreading upwards, with gradual diminution of size to the middle of the jejunum, present themselves in the form of bands or stripes (which have been looked upon by some as pathological alterations) varying from six to ten lines, sometimes to that of several inches, in length. These are now pitched upon by Dr. Bretonneau, a distinguished physician of Tours, as the seat of a large class of fevers—such as the *febris putrida genuina*—the *synochus putrida*—the "*fièvre muqueuse adynamique*" of Pinel—the "*gastro-enterite*" of Broussais—the *typhus mitior et gravior*, which has ravaged Ireland, for instance, of late years—and which is never absent from the hospitals of Paris. Some of our readers will be ready to cry out—read no more—listen not to such eccentricities. But it is the part of wisdom to listen and endeavour to learn, even from the most absurd speculations. The attempts to fix the seat, and establish a theory of fever, have invariably enlarged the boundaries of our knowledge respecting that important scourge of the human race. These investigations, if they have not determined the causes, have elucidated the effects or consequences of fever, which are often more fatal than the fever itself. In failing to establish the truth of their peculiar hypotheses, they have, at least ex-

posed the errors of others, which is no mean advantage—but they have done a great deal more. They have opened out new views of the various conditions which both cause and result from, fever, and have consequently enlightened the dark paths of practice and drawn our attention to the dangers which were before concealed from our sight. Of all parts of the body, the internal surface of the intestinal canal has most escaped the examination of pathologists, especially in this country—and yet, it is the very part which most frequently shews the ravages of the disease. It is in vain to deny this assertion. Till within the last few years, the mucous membrane in question was not sufficiently attended to in this or in any other country—and, therefore, we have no right to shut our eyes against delineations of its pathology, however fanciful may be the deductions drawn from its morbid conditions in fever. Let us listen to facts, and draw our own conclusions. It is hardly necessary to remark that the meaning of the term here employed by Dr. Bretonneau is “*pustular enteritis*,” from *δοθινη*, pustula.

Our author has not been able to make any dissection prior to the *fifth* day of the disease, and consequently his pathological descriptions commence from that epoch. The glands of Peyer (above-mentioned) particularly in the neighbourhood of the ileo-cæcal valve, are, at this period, much swollen, their edges rising in relief above the mucous membrane—their surface rather unequal, and their length and breadth increased. The glands of Brunner (which are of a different order—are about the size of millet-seed—and scattered indiscriminately throughout the whole line of stomach and intestines, great and small) begin, at this period, to become prominent, and it is sometimes possible to distinguish the orifices of their mucous crypts. At this time, the mesenteric glands begin to take on a slight rosy tint. *6th day*, The tumefaction of Peyer’s glands is increased—and, on holding a portion of intestine between the eye and the light, with the peritoneal coat next the observer, the follicular band, or stripe occupied by the said glands, will be easily distinguished by its greater opacity—and by its greater lacerability. Sometimes, but only rarely, these bands will be seen encircled by an areola of inflammation at this period. At this time, the glands of Brunner (naturally like millet-seed) are still more prominent, so that the mucous membrane now appears as if covered with a close pustular eruption. The mesenteric glands are still farther augmented in size, and heightened in colour. Between the 7th and 9th days, the glands go on increasing in size, and the inflammation reaches the crypts, which hitherto were unaffected.

9th day. The glands of Peyer, now more rounded out, present salient and undulating borders—are red, fungous, softened, unequal, but as yet shewing no trace of erosion. The same may be said of the glands of Brunner. The mesenteric glands are now enlarged to the size of a pigeon’s egg, in general, and they are still deeper in-colour and softer in substance. *10th day*, One of two things now takes place—either the phlegmatia turns (which is the most common case) towards resolution, or it proceeds on its course to run through the remainder of its stadia.

In the *first* case, the glands begin to diminish in size on the 10th day, and continue to diminish till the 14th—and, by the end of the third septenary period, there is scarcely any thing to be seen different from the healthy condition—excepting in the mesenteric glands, which preserve, for some weeks, a size above the common medium. In the *second* case, or where the phlegmasia runs through the whole of its periods, the glands of Peyer, on the 10th day, present a rugous surface, and the tissue of the follicular mass is red, thickened, and, as it were, fleshy. Some of these glands, however, as well as those of Brunner, change into a state of resolution, while the others go on their course. The mesenteric glands begin to diminish in volume, but continue of a considerably intense colour. 11th and 12th days, The tumefaction of Peyer's glands is still farther augmented—the inflamed parts are elevated in the form of conical fungosities, shewing, on their summits, marks of slight erosion. On cutting into one of these tubercles, we find it composed of a reddish tissue, in which it is difficult to discover any trace of organization. The mesenteric glands are still farther diminished in size. 13th and 14th days. The tumefaction is still more considerable—the summits of the tubercles excoriated and tinged with bile, which, at this period, seems to be abundantly secreted. A portion of each tubercle now appears to be in a completely disorganized state. 15th day. About this time the dead portion of tubercle turns off, leaving a large ulcer, in the middle of which is a dead slough still adherent at the base. An inflamed areola sometimes encircles the ulcerated gland. 16th day, The core now becomes completely detached, or is removed by the slightest effort, leaving a deep excavation, with ragged, raised, and everted edges—the bottom of the ulcer resting on the muscular, or even on the peritoneal coat, which is sometimes perforated in this manner. Frequently five or six of these ulcerations may be seen in one patch or stripe of Peyer's glands, giving it a fungous and irregular aspect. Here and there may also be seen little isolated ulcerations, having their seat in the crypts of Brunner's glands. At this time, the mesenteric glands are observed to be softened in general, and resolved into a kind of boullie. Often at the bottom of these ulcers may be seen the meseraic vessels quite bare, and which, by bursting, during life, give rise to those discharges of blood which are attributed to extinction of vitality in the internal organs.

But it is not to be concluded that all the pustules which do not take the favourable turn on the tenth day, run on thus to ulceration and sloughing. It is only a small proportion, in fact, which take this course. The majority either disappear in a few days—or, remaining stationary for some time, slowly disperse, without suppuration.

17th and 18th days. The edges of the ulcers subside, and become less irregular—the ulcer diminishes in depth—its bottom becomes covered with the *debris* of the tissues mixed with bile and mucus. The tumefaction surrounding each solution of continuity now begins to disappear. 19th, 20th and 21st days. The glands of Peyer begin to resume their natural size, though still of red colour. The ulcerations commence the healing process—and the appearances of redness and inflammation

which surrounded them, have vanished. *25th day.* The glands of Peyer and Brunner have now assumed their natural volume, and are only distinguished by a rosy tint, and by the recent cicatrizations, or by some straggling ulcers not yet healed. *30th day.* By this time the cicatrices are generally firm; yet some ulcerations remain even till this period—especially about the lower portion of ileum. *40th day.* It is very rare, but it sometimes happens, that the ulcerations are not entirely healed even at this remote period.

Such are the pathological conditions which M. Bretonneau has been a number of years in ascertaining, and which his numerous pupils and friends have had the opportunity of witnessing and verifying in Tours, Paris, and in the French armies.

We must leave the confirmation or refutation of these statements to the experience of future pathologists; but shall introduce one or two cases by way of illustration.

Case 1. Louisa C. aged 19 years, entered the Hospital on the 21st May, 1824; had lately been exposed, at the period of menstruation, to cold, which suppressed the discharge. From this time she had periodical head-ache, pain in the loins, vomitings, dry cough. On the 16th May, she had cold chills, and general mal-aise, and next day intense fever. This state continued till the date of her entrance into Hospital, as above. She now presented the following phenomena—vacillating pulse, which was very quick—tongue moist and red at the point—respiration interrupted—sharp, dry cough—pains in both sides of the chest—head-ache intense. *Bled to 16 ounces.* Blood not inflamed. 18th, Stupor—decubitus supinatus—cheeks vivid red—breathing less frequent than yesterday—pulse depressed, quick, irregular—tongue red at the point, white and cheesy towards the root—skin very red yet moist. *Diluent drinks.* 19th, Same symptoms, but the stupor is more profound. Twelve leeches to the fundament. Hitherto the alvine evacuations were natural, and there was no thirst, no delirium. 20th, The cerebral symptoms predominant—stupor and apathy extreme. The diagnosis was now *acute hydrocephalus*. Twelve leeches to the neck. 21st. Dilatation of the pupils—tongue vivid red—stupor profound. Died in the course of the day.

Dissection. Neither in the head nor in the chest could the least mark of morbid structure be perceived, though the greatest care was taken in the dissection. There was no inflammation in the stomach. About eight feet from the termination of the ileum the eruption which we have described, commenced, and was of a very confluent character. The glands of Peyer and Brunner were swollen, but presented no trace of erosion. The mucous membrane between the glands was perfectly colourless. The eruption was very visible in the cæcum, and in the ascending and transverse arches of the colon.

Remarks. This case is valuable in another point of view besides that of the eruption abovementioned. We see that the affection of the

head was at one time such that the disease was pronounced *acute hydrocephalus* ; yet no trace of disease was discoverable on dissection !

Case 2. Gerard, a soldier in the 9th dragoons, aged 24 years, entered the Hospital of Tours, on the 7th February, 1824. The account received with him was, that, ten days previously, he had experienced alternate chills and flushings, head-ache, moderate fever, diarrhoea. 8th (day after reception) and 12th day of the disease—decubitus supinatus—air of drunkenness—prostration—stupid look—tongue red at the point and furred elsewhere—teeth dry and rather encrusted—pulse small, undulating—subsultus tendinum—deafness—delirium—stools frequent—thirst intense—abdomen soft. *Lavements—rice water.* 13th day of the disease. The above symptoms are all exasperated. *Same treatment.* 14th day, Sensible amelioration. 16th day. All the bad symptoms again in force. Pupils contracted. Stupor and prostration of strength extreme. 18th day. Death took place this day.

Dissection. The membranes of the brain were transparent and healthy, and no serous or other extravasation obtained in any part of the head. The cerebral mass was perfectly healthy. Nothing remarkable in the thorax. The mucous membrane of the stomach presented no particular alteration. Throughout the whole ileum, the follicular apparatus was severely affected. In some places the ulcerations nearly extended to the peritoneal tunic. The mucous membrane was sound in the interstices between the inflamed follicular stripes.

Numerous other cases are detailed ; but we do not deem it necessary to introduce any more. We think the subject of this paper is highly deserving the attention of our readers.

CURIOUS AND FATAL CASE OF MANIA.*

The pathology of mental alienation is far from having arrived at perfection. Many observations are yet wanting to elucidate its etiology also. On this account we present the following case with its dissection. Mad. J. arrived at her 42d year, without evincing any symptom of mental alienation. She became married at the age of 34, but was soon after obliged to separate from her husband. For eight years more she continued to enjoy good health and spirits. During the three months preceding the present report, her friends were surprised to find her become extremely voluble, talking incessantly for hours together, but with intervals of quietude. These intervals became shorter and shorter, and she was sent into the MAISON DE SANTÉ of St. Colombe. Our author saw the patient on the 15th May, 1825. Her face was rather flushed—and her eyes rather wild. Her conversation was incoherent. In the evening, after a very joyous fit, she had a paroxysm of hysteria. 18th. Her loquacity being great—her face flushed—with other symptoms of considerable irritation, she was bled. 20th, Bled again ; and from

* Dr. Brierre. Bullet. de L'Athenée de Médecine.

great agitation she passed into a state of comparative tranquillity—and some rationality. *2d June.* The insanity now presented a different character. From obstinate taciturnity, she would burst out into loud laughter or declamation. Her tongue was white; but she had no febrile symptoms. Her apartment was darkened, and she was put upon low diet. She had occasional attacks of hysteria. During the whole of the 6th June, she appeared in a profound sleep—her muscles contracted—her jaws clenched—her arms were cataleptic. 7th, Continues in the same state—her face flushed—body covered with sweat—pulse full and frequent. She took no nourishment during the last two days. In the evening she rallied, and spoke more rationally. Her skin was turning of a dull yellow colour. 8th and 9th. Relapse into the same lethargic state, with cataleptic condition of the upper and lower extremities. 11th, The catalepsy was well marked in the limbs, which preserved whatever attitude they were placed in. Suspecting that she was feigning, they placed her on her feet, and she soon fell to the ground. 12th and 13th, In the same state. 15th, She emaciates rapidly. Her gums are pale—her feet cold—she broke silence to day, and complained of weight at the epigastrium. Twelve leeches were applied there. 19th, During the last three days the patient spoke not, and took no aliment. All at once she roused herself—her eyes became furious, and her looks haggard—she tried to bite those around her—pulse small and feeble. On the 8th July, we find her affected with sickness and vomiting, which ceased on the 11th. At this time she had been 12 days without a stool, in spite of strong glysters, &c. From this period till the 14th, (the day of her death) she got worse and worse.

Dissection. With the exception of the uterus, there was nothing particular in the thoracic, abdominal, or pelvic viscera. The internal surface of the uterus was red, and covered with a puriform secretion. The anterior portions of the two anterior lobes of the brain were softened, and of a pale yellow colour. This alteration was about a line in depth. There was no serum in the ventricles. The medullary substance was very hard, as was also the medulla oblongata. The right thalamus nervi optici presented a softened portion half an inch in extent, which readily separated from the sound substance underneath. The membranes of the brain were sound, and there was a small quantity of serous fluid between them.

The cause of the mental alienation, our author thinks, must be sought in the condition of the uterus. Its internal surface had been evidently, for some time, in a state of inflammation. The brain, he imagines, became affected, sympathetically, from the uterus. The phenomena of hysteria and catalepsy, will, of course, be readily placed to the account of the uterine affection.

CASE OF WOUND IN THE LUNGS.*

A marine of a plethoric habit, was severely wounded in the chest, by a

* Related by James Mitchell, Surgeon, Royal Navy, Wooler. Ed. Journal, April, 1826.

cannister shot. When seen the day after, he was found sitting on a pallet, the head bent forwards, mouth open, and gasping for breath, face swollen and much flushed, and the pulse full and bounding. Two pints of blood were drawn, which enabled him to speak and breathe more freely. On examination, the shot was found to have passed through the right breast below the nipple, and to project in the back through a wound it had made under the right scapula. When extracted, a large quantity of frothy blood issued out, and a lighted candle, held to the wound, was instantly extinguished. The wound was cleaned and dressed, and the patient laid on his back, after which he discharged by the mouth, a large quantity of frothy blood and mucus from the lungs. In an hour, V. S. ad fb j., cool subacid drinks and sulphate of magnesia, with strict abstinence, were employed. He took four times a day, *t. digital. gtt. x. acid. sulph. dilut. gtt. xv. liq. plumb. acetat. gtt. iij. aq. font. z i. m . ft. haust.* and lost, in all, by bleeding, eight pounds of blood, which relieved the constitutional and local irritation so much, that he could lie down with ease, and breathe comparatively freely. His bowels were opened by the salts, and he took the following anodyne; R . Tinct. op. gtt. xxx. vin. antim. z i. spt. æth. nitros. z i. aq. z i. m . ft. haust.

He spent a pretty tranquil night, but towards morning he had an increase of the fever, hæmoptysis and dyspnœa, which were dissipated by V. S. ad fb i. Treatment as before. During the day he had two attacks, which were each relieved by the abstraction of a pound of blood. Anodyne at night.

Third day: much better. From this time he continued to improve daily, and required no further bleeding. The bowels were kept open; the circulation restrained by sedatives and abstinence, and in five weeks he was completely cured, having only a little difficulty of breathing on walking quickly or up an ascent.

Remarks. This man had a very fortunate escape, almost as fortunate as Mr. Maiden's patient, who recovered after the shaft of a gig had passed through the lungs, and pinned him to the wall.

ACTUAL CAUTERY IN TRAUMATIC ERYSIPELAS. BY BARON LARREY.

The Baron observes that, on the fourth or fifth day after the infliction of a wound, there must necessarily arise an inflammation on the borders and parietes of the said wound which produces a too speedy union, especially if the division of continuity be not simple and uniform, like that made by the surgeon's instruments. Improper applications, the contact of cold air, bilious irritation, and many other causes, increase this inflammation, which often becomes of an erysipelatous character, and spreads rapidly to other parts. If there be any deleterious miasmata in the atmosphere at the time, the mischief is increased, and the erysipelas often ends in gangrene. If the biliary secretion be in a bad state, the erysipelas assumes an unhealthy aspect—the wound becomes yellow

at the bottom, and hepatitis is often a complication. If the stomach be in a state of debility, the erysipelas becomes pale, the edges of the wound tumid, and the base covered with a thick yellowish and putrescent substance, characteristic of debility and hospital gangrene. To this species of erysipelas Baron Larrey applies the actual cautery, near to the wound, and affirms that it arrests at once the progress of the phlegmasia. The application causes very little pain, and is accompanied and succeeded—1st, by a gaziform effluvia of an animal odour—2d, by the disappearance of the heat and tensive pain of the part inflamed—3d, by the dissipation also of the redness and swelling of the part,—4thly, these cauterisations are not followed by any suppuration, or gangrene, the burnt skin merely peeling off in carbonaceous crusts, leaving no sensible cicatrices; 5thly, the purulent discharge from the wound, which had ceased on the appearance of the erysipelas, is soon reproduced; 6th, the strength of the patient is increased, the functions of the viscera re-established, and the exanthematic disease put a stop to. The hot iron is to be applied to the reddest points of the erysipelas. Some cases in illustration are related by the Baron, but they need not be noticed in this place.—*Révue Médicale, Février, 1826.*

DISEASE OF THE STOMACH.

In another part of this Journal we have given some interesting observations and cases of gastralgia by M. Barras, shewing how nervous affections of the stomach may sometimes be mistaken for inflammatory or organic diseases of that viscus, to the great detriment of the patient. The case which we are about to relate will set, in a striking point of view, the difficulties with which the medical practitioner is beset; and how liable he is, in avoiding Scylla, to run into Charybdis. Of the two errors, it is certainly better to mistake gastralgia for gastritis than the reverse. In the *former* case, the penalty is generally only a protraction of the cure, and a needless quantum of suffering—in the *latter*, the consequences may be fatal. It is only by a careful record and observation of facts that we can hope to avoid both errors.

Case by M. Bourgeois. (Journal General, January 1826.) In the beginning of the year 1817, a gentleman, (M. P.) aged 45, of high complexion, and inclining to corpulency, consulted our author for a slight gastralgia, which was generally felt after eating, accompanied by a sense of fulness, eructations, discharges of wind, and also a considerable flow of clear saliva, especially in the mornings. He also complained of pain over the orbits, loss of appetite, bitter taste in the mouth. The tongue was coated—and there was a yellowish tint, very slight, about the alæ nasi and commissures of the lips. A similar train of symptoms, the patient stated, had occurred several times during the preceding years—at first very slight, and fugitive—afterwards more troublesome, and of longer duration. He traced the commencement and the cause of the

complaint, to the period of trouble when the Allies entered France, at which time he suffered great anxiety of mind. These attacks had generally given way to emetics, and the same remedy was at this time employed, but with only a very temporary good effect. M. Bourgeois, therefore, recommended abstinence, milk diet, leeches to the epigastrium and anus. These means procured a gradual and slow amelioration of the symptoms, and the patient was able to attend to his affairs. But the least error in regimen renewed all his sufferings, and the patient began to tire of the plan of rigid diet and lowering means recommended by his physician. A consultation was called, and the new physician looked upon the disease as gastralgic or nervous, and, therefore, reversed the treatment, giving opiates, bitters, rhubarb and magnesia, and the waters of Vichy. These means were continued for some weeks, but evidently with an aggravation of the complaint. The patient now began sensibly to emaciate, and he complained greatly of a heavy gnawing pain between the shoulder blades. The epigastrium was now tender on pressure—the bowels constipated, and there were distressing colicky pains. The patient was completely hypochondriacal, and excessively irritable.

The new plan of treatment was, in its turn, abandoned, and the patient determined to throw himself into the hands of empirics. Our author was, of course, dismissed, and did not meet with the patient for six months afterwards. The meeting then was accidental. M. Bourgeois perceived that the emaciation had considerably advanced—that the complexion was more plombeau—the eyes hollower—the features much more altered. Still, the patient was not laid up, and he evidently dissembled his real feelings, partly, perhaps, from shame at being in the hands of quacks. A time, however, arrived, when the unhappy patient could no longer disguise his situation. In the beginning of January, 1818, he again sent for M. Bourgeois, in the middle of the night; and was found by him, pale, emaciated, scarcely able to make himself understood, and apparently ready to be suffocated. His countenance expressed the greatest fear and anxiety—the pulse was small and intermitting. He took M. Bourgeois's hand, and carried it to the epigastrium, where, to the physician's astonishment, there was a solid tumour the size of a child's head, pulsating synchronously with the heart! While examining this tumour, a paroxysm of vomiting came on, and some slimy mucus was thrown up. This sickness, he was informed, took place whenever any thing was received into the stomach, whether liquid or solid. In short, it was abundantly evident that there was a scirrhus of the stomach, of a fatal kind. It is, therefore, needless to dwell on the means that were used—two only of which ever gave even temporary relief. These were leeches to the epigastrium, and laudanum thrown up by injections. Emaciation was at length carried to the utmost degree, and almost every part of the body was sympathetically affected by this dreadful malady. There was constant dry cough, and the mental functions were greatly disturbed. Nature, assisted by art, withstood this terrible trial for 47 days after M. Bourgeois's second summons to this

unfortunate gentleman, when death put an end to his sufferings and miserable existence without a groan or a struggle.

Dissection. When the abdominal cavity was laid open, the tumour, which was easily recognized to be the stomach, was found immoveable, in consequence of intimate adhesions with all the neighbouring parts. It was carefully isolated and removed from the body. It was the size of a large melon—hard—and weighed five pounds French. The scalpel could hardly penetrate it. It was of a fibro-lardaceous nature, and quite homogeneous in appearance. It occupied, or rather consisted of, the coats of the stomach thus changed in structure. The cavity of the organ was very small, and the lining membrane was every where pale, or streaked with granulations. There was about an eighth part of the viscus, towards the superior portion, which was not involved in the scirrhous disorganization. The pyloric orifice was entirely lost in the mass of disease, and could not be recognized. The greater part of the duodenum, and the whole of the pancreas were involved in the ruin. There was nothing worthy of remark observable in any other part of the body. The thoracic organs were perfectly sound, though their functions had been so much disturbed by the gastric disease.

M. Bourgeois makes many sensible observations on this deplorable malady, which, he thinks, is much more common in our days than formerly. This is not improbable, on many accounts, but chiefly in consequence of the progress of luxury, and the increased cultivation of the mind at the expence of the body. The case which has been detailed, combines in itself most of the prominent or essential characters of this fatal disease. Among these, the slow and insidious march of the malady is the most conspicuous. A slight derangement of function in the stomach, with a trifling malaise, rather than pain, marked by a sense of fulness, weight, and constriction, principally during digestion, were prelude of tongue furred in the middle and red at the edges and point—inappetence—disposition to nausea—acid or nidorous eructations—distressing flatulence. Such are the primitive symptoms; and it must be confessed that these are common to many affections of the stomach which have nothing of a malignant, nor even of an inflammatory nature about them—such as the common cases of indigestion or loss of tone in the stomach, from sedentary occupations, literary studies, anxieties of mind, and a hundred other causes.

According to our author's experience, the least equivocal symptoms of the serious malady now under consideration, are darting or lancinating pains—vomiting—a voracious craving for food (which he regards as a mode of pain peculiar to the stomach)—and a sensation of faintness. The last-mentioned symptom is an indication that the vital force is concentrated towards the disordered organ. Epigastric pulsation is also considered as a bad sign—but every man of experience must have seen this in numerous cases where no serious malady was in existence at the time.—We consider these pulsations as very far from being “*les signes precursors de la tumeur pathognomonique.*”—He thinks, and with probability, that when the posterior portion of the stomach becomes first

the seat of disease, it eludes investigation for some time, on account of the depth at which it is situated. In many cases, however, the symptoms of gastric scirrhus are so uncertain, that the disease arrives at a monstrous, or even fatal, height, without being recognized by the medical attendants; witness the memorable case of Napoleon Buonaparte. Still, we think an attentive observation of the phenomena, and especially of the effects of remedies, and the *juvantia* and *lædientia*, will enable us, in most instances, to distinguish cases of gastritis from those of mere gastralgia. We refer to the paper on the latter subject for illustration. In respect to the case just now related, we are very far from agreeing with our author, that the disease was owing merely to chronic inflammation of the stomach. It was clearly a specific disease, in all probability, inherent in the constitution, and which no system of regimen could have prevented—no plan of treatment cured. We do not, by this, mean to assert that a certain treatment (for instance, of stimulation) might not aggravate a scirrhus affection of the stomach or any other part, since irritation and inflammation must be ingredients in the morbid process going forward in this terrible disease. What we mean to say is this—that the stimulating treatment was not the cause of this patient's death—nor would all the leeches in Paris have saved his life, though they might probably have prolonged it.

M. Bourgeois, in adverting to the causes which have increased the prevalence of this disease in our days, accuses, among other things, the immoderate use of coffee—"whose *irritating* action on the sensorium is so marked, that it has obtained the title of *intellectual drink*." We should be disinclined to accuse coffee of such a crime as that of producing cancer of the stomach—neither are we convinced of its *irritating* action on the sensorium, although, like strong tea, it has the effect of preventing sleep in most individuals. We do not conceive that irritation and *excitation* are perfectly synonymous in a physiological sense. The mildest food *excites* the stomach, and through that several other organs in the body—but are we justified in saying it *irritates* the stomach? The same may be said of coffee.

MEDICAL JURISPRUDENCE.*

The complaint of Medico-Chirurgus, though very evidently drawn from a single and local instance, would apply to every town, from the metropolis downwards—and not to the stigmatised Scotch Diplomats only, but to men *melioris notæ*—not of the present time alone, but for more than a century back. It is true the profession is over-stocked—and men, the young as well as the old, will descend to many a shift, rather than starve. The poor apothecary consented to give Romeo the poison, from necessity rather than inclination:—the poor half-pay surgeon,

* A letter addressed to the Medical Profession, on the Encroachments on the Practice of the Surgeon-Apothecary, by a New Set of Physicians. By Medico-Chirurgus. 8vo. sewed, p. 20.

who served his country during a long and disastrous war, and wasted his prime of life, "by flood and field," cannot live, still less support wife and children on six shillings a day. He must endeavour to turn his experience to some account, and pick up a fee in town or village, as he can. Medico-Chirurgus is too severe upon this class. It is too late in life for many of them to begin as general practitioners,—and still more so to go to school again, and relearn all the trash, and nonsense, and theory, and errors, which every man is glad to forget in his journey through life, but which alone would enable him to maintain a *thesis* at the age of 40 or 50, and thus come out—"privilegiis *ritè ac legitimè* consequendis." If Medico-Chirurgus himself, after having got a good education, and practising for 30 years, chose to take out an Aberdeen Diploma, and restrict himself to the practice of physic in his native or a neighbouring town, would any man of sense or liberality say that he was unqualified for such a situation? These are the two classes of men who take such degrees; and the state of society, and the circumstances of the case, justify the deviation from the regular path. With any other description of medical men the said degree would be of no use, and certainly should not be tolerated. So far then, we think the complaint of Medico-Chirurgus is not founded on justice and liberality:—not so his animadversions on the *conduct* of individuals who disgrace the profession by intriguing and manœuvring to work themselves into the favour of families, at the expense of the general practitioner previously, or at the time, in attendance. The author of the pamphlet before us cannot hold in greater detestation than we do, such a vile mode of rising in the world. But, alas! Medico-Chirurgus knows little of the world, if he thinks this stigma is confined entirely to diplomas signed north of the Frith of Forth!—Many "*ritè et legitimè*" doctors, on both sides of the Tweed, have taken out the degree of "Master of Arts," in the valuable science of *supplantation*. They do not, indeed, go to work in the clumsy country-bumpkin way which our author describes.

"Presuming on having practised the different branches of the profession, a physician of this cast is at one time found dressing a sore leg, or attempting to reduce a fracture, and at another officiously interfering in a lying-in chamber; which perhaps he enters for the first time in his life. No set of men are more clamorous for practice, and none less delicate in their mode of obtaining it; and that they succeed beyond their merits, is a truth that must be acknowledged. They wish to inculcate an opinion that they have received from nature, a secret propensity to all that is good and virtuous; and indulge the extravagant vanity, that they are, by nature, superior to all others. They have the effrontery to expect that, when they are consulted, the inferior practitioner, as they indecently style the family attendant, is to surrender the case entirely into their hands; and express great surprise when they find any man with sufficient good sense and regard for the welfare of his patient, not tamely to submit to their wishes. Inflated with a vain conceit of their acquirements, with an intolerant temper, they aim at uni-

versal dominion over their better-informed and more deserving brethren ; and varnish over their mean designs with an affected liberality." 9.

No, no ! This would only do among mountains or fens. The master of arts has a far more refined mode of procedure. By means of the fifth pair of nerves, and the portio dura of the auditory, the knowing physician—aye, and the pure surgeon too, will "damn with faint praise," or without speaking a single word, the general practitioner before his face!—This, indeed, is the acmé of perfection in the science of supplantation. But as, "in our father's house there are many mansions," so, in this noble art there are various degrees of attainment. There are many who cannot perform in *duetts*, but who are excellent at *solos* with the patient or friends. Some, indeed, have the organ of supplantation so prominently developed, that the general practitioners are all warned of their danger, and a perpetual warfare is waged by the two parties—one endeavouring to *keep*, and the other to *get* his enemy out ! This, of course, brings great odium and discredit on the profession—and causes great misery and dissatisfaction among patients and their friends. The following graphic sketch is, we know, from Nature.

"His next care is to become acquainted with the general practitioner in the most extensive practice, and by one art or another he prevails on him to introduce him first to his friends, and by degrees to his patients. At first he is all attention and kindness, but as his introductions increase, and he finds himself on firmer ground, his next care is to detach the patients of his unsuspecting friend, and lessen that confidence which he has long and deservedly enjoyed. This may not appear an easy task, but perseverance overcomes many difficulties ; and when a man of this character once obtains a footing in a family, he will never rest until he has succeeded in supplanting their regular attendant. One mode of advantage is, that, having much leisure time, whilst the general practitioner is engaged in earning his daily bread, he will take frequent opportunities of making his professional visits in the absence of the surgeon, and by insinuation and other arts lessen his value and importance. The family will compare the extreme attention of the physician, with the occasional visits of the surgeon, who, for the first time, hears something like disapprobation, and hints of neglect—these gradually increase, and, in the end, the family is too often lost to the old attendant, and taken possession of by this notable physician, who reconciles them with the assurance, that his prescriptions can be very accurately dispensed by a neighbouring druggist, with whom he probably shares a profit on the medicine, a practice as notorious as the sun at noon-day." 7.

We hope and trust that the last part of the charge—the practice of participation with the druggist, is of very limited extent ; but that the system of detraction prevails to a considerable degree, especially among the lower and more necessitous orders of the profession—and, we are sorry to say, among a *few*, whose rank, riches, and established reputation leave them no excuse for such conduct, we are compelled to confess. Nothing has tended more to injure the profession in the eyes of

the public than this intestine illiberality among its own professors—and we greatly fear that there will always be found individuals who, caring only for their own private interests, and totally indifferent to the honour and respectability of the faculty to which they belong, will give way to the baser passions of human nature, and slander others with the view of benefitting themselves. It is the duty, therefore, of the influential men of the profession to discountenance such men and such conduct by every mark of detestation which it is in their power to express. Heaven knows there are sufficient sources of error, uncertainty, and difficulty, in the practice of medicine, without aggravating them by malicious insinuations and ungenerous comments, that too often destroy the peace of mind of suffering patients, surviving relatives, and the reputation of medical men, without a shadow of justice or of benefit to any party! Patients and friends are but too apt to indulge in reflexions on the skill or success of their medical attendants, and it is the duty of all professional men immediately to check such querulous insinuations, instead of listening to them, or fostering the spirit of discontent thus evinced. If medical men were to protect each other's reputation when clandestinely attacked, they would all reap the benefit, and they would rise higher in public estimation.

But it will be said—indeed, we have heard it said—“are we to conceal the ignorance, screen the blunders, and sanction the errors of our brethren?” Who has constituted us their judges, we ask? Are we to listen to the *ex parte* statements of patients or friends, whose passions are enlisted in the cause of their fancied wrongs—and thus pass judgment on hearing one side of the question?—Such decisions would be disgraceful to a Turk—or even to a savage—and yet such decisions are daily given by one medical man against another! Vice, they say, is a monster of such horrible aspect, that it needs but to be seen, to be dreaded. No vice can be more degrading, disgusting, and injurious to medical society than the spirit of detraction which we have thus portrayed. We conjure our brethren to shake off a stigma from the medical character, which is become proverbial by its universality.

ELEVEN MONTHS' PREGNANCY.*

Considerable interest is attached to this subject now, in consequence of a recent trial in high life, the issue of which is not yet determined, we believe. Nature is, no doubt, a most systematic legislator, but yet she does not always closely adhere to her own laws. Few things are more regular than the period of utero-gestation, both in the human and the brute creation; yet the peeress and the cow will sometimes go beyond the nine months, or bring forth their young short of that period. Without giving credit to the monstrous tales that have been recorded respecting extraordinary protractions of utero-gestation, we may fairly believe that ten, eleven, or perhaps twelve or fourteen months may elapse between conception and birth. The parliament of Paris, decided the

* Edinburgh Medical and Surgical Journal, April 1826. Dr. James Collins of Liverpool.

legitimacy of a child born eleven months after the departure of the father to another country. The university of Heidelberg allowed the legitimacy of a child born at the expiration of 13 months—which we think was a most extraordinary stretch of indulgence to the fair-sex. Moriceau, La Motte, and others, have related cases in their own practice, in which pregnancy continued 12 or 13 months. The *former* states that there are no fixed limits for utero-gestation—that it is influenced by many circumstances over which we have no control. The *latter*, after citing many remarkable cases that fell under his own observation, says, it is natural to imagine that the child who has taken more nourishment, may grow more in nine months than another in the same time; and asks why should not the foetus that has not acquired the same degree of development, retain the place destined for this purpose, until it has attained the necessary degree of perfection? But we shall cease speculating, and proceed to facts.

The subject of Dr. Collins' case, was a woman about 24 years of age, and the mother of several children. She engaged our author to attend her, being then, as she calculated, in the eighth month of pregnancy. The fundus uteri was as high as the epigastric region, and gave to the abdomen the form and appearance of full eight months' pregnancy. Our author, however, not being satisfied with numerical information, proceeded to what he considers a much more certain criterion.

“ In examining *per vaginam*, I found the neck or cervix of the uterus remarkably high, scarcely tangible, and with difficulty distinguished from the body of the uterus, as it presented little or no prolongation. Availing myself of my position, I placed the left hand on the abdomen, and, giving a gentle jerk to the *os tincæ* with the index finger of the other, the foetus bounded from the touch, and fell again on the finger, exciting the sensation which the French call *ballotement*, and that degree of weight which a foetus of eight months, it is supposed, could alone produce. Thus I ascertained the stage of the pregnancy; as the indications I have just detailed, according to the experience and observation of the most eminent in the profession, are sufficiently characteristic of it, and constitute the most conclusive means we possess to determine it with accuracy.” 246.

We confess that we have less confidence in this process of tilting and balancing a foetus on the point of the finger, for the purpose of ascertaining its age, than our author seems to have; and, for the reason given by La Motte above, viz. the different degrees of development in different foetuses at the same period after conception. Be this as it may, the end of the ninth month approached—the uterus gradually sunk in the abdomen—and the patient began to feel all the sensations that usually accompany that state. Our author was again induced to make examination *per vaginam*, and found the head of the foetus much lower down, and more solid to the touch; the *os tincæ* was open, and every thing announced speedy labour, the precursory symptoms, in fact, being already felt. Soon after the expiration of the ninth month she appeared to

have labour-pains; but they went off, time after time, and she was thus harrassed for three or four weeks, without things coming to a crisis. Our author then began to grow uneasy, and to suspect that he had made a false calculation. He resumed his experiments and examinations, but found the parts just as they were at the expiration of the nine months. He, therefore, diminished the frequency of his visits, and two months had nearly elapsed since the expiration of the ordinary time of pregnancy, without any more probability of accouchement. At length the symptoms which manifested themselves at the close of the ninth month returned, and after a very short labour the woman was delivered of a fine active boy. There was only one thing remarkable in the parturition. The membranes did not give way until the head was almost at the extremity of the passage. The moment they broke, the infant screamed, and excited no small amazement in the mother and bystanders.

Dr. Collins informs us that this poor woman's husband lost his situation about the third month of her pregnancy, and, in hopes of procuring another, he continued in Liverpool until his wife's pregnancy was so far advanced as to prevent her accompanying him to Ireland where he might have got another. He at length, when the pregnancy was so far over-run, was obliged to leave her in the greatest distress. We draw a conclusion different from our author on this point. We think it was natural for the wife to represent herself as farther gone with child than she really was, in order to induce the husband not to abandon her in such a situation. Still the case is remarkable, and offers, we believe, an instance of protracted utero-gestation.

ON THE CICATRIZATION OF TUBERCULOUS EXCAVATIONS IN THE LUNGS.*

Once developed in the pulmonary parenchyma, tubercles progressively soften down, in the great majority of cases, and make their way into the bronchia, leaving in their place an excavation of greater or less extent, which becomes larger by union with others in the neighbourhood. In general, these cavities shew no disposition to fill up or heal. The purulent secretion from them is a constant source of emaciation, and the patient ultimately sinks. Laennec has lately drawn the attention of the profession to a few exceptions from this general rule, where the excavations have healed in a manner analogous to the healing of an abscess in any external part. The truth of this fortunate event is, however, still denied by many physicians, or at all events doubted, and ranged among those phenomena which need farther proof and elucidation. On this account M. Andral considers it desirable to accumulate all the facts we can upon so interesting a point of pathology, in order that the validity of the phenomenon may be established, or its fallacy detected.

* M. Andral, jun. *Revue Medicale*, Decembre, 1825.

Case 1. A woman, about 50 years of age, died with all the symptoms of pulmonary consumption. The superior and middle lobes of the right lung presented a red induration with black spots. In the midst of this condensed portion were found some crude tubercles of small size, and five or six considerable cavities filled with pus, most probably from softened down tubercles. The left lung appeared, at first sight, to be sound; but, on minute examination, there was found, quite at the summit, a small cavity lined with a smooth, dense membrane, into which two bronchiæ opened. This cavity would hardly admit a small nut, and contained a little serous fluid. Around this cavity, the parenchymatous structure of the lung was indurated. On more accurate investigation it appeared that this cavity was only the remains of a larger one, whose parietes had coalesced, and, therefore, it was probable that had the patient lived some time longer, the whole would have been obliterated.

Case 2. In the body of a man, 52 years of age, the two lungs contained a great number of tubercles, crude and softened. The summit of the right lung was dark coloured, indurated, and presented a hollow or sulcus on its surface. On cutting into this part, they found, a few lines from the periphery, an irregularly roundish cavity, capable of containing a nut, communicating, by means of a short fistulous tube, with a second and smaller cavity crossed by a septum. Both of these cavities contained a reddish serum. They were surrounded for some lines in extent, with a homogeneous white substance resembling cartilage. These cavities were lined with a fine polished membrane. Three large bronchia were found running towards this indurated portion, in which they were abruptly lost or obliterated. One other bronchium, however, was found to communicate, by means of a small membranous conduit, with the larger cavity. There is every reason to believe that these were the remains of tuberculous excavations formed at some former period of the patient's life.

Case 3. A man, about 40 years of age, died of acute pneumonia. The greater part of the right lung was in a state of purulent infiltration. Towards the superior part of the inferior lobe of this lung, a space was found, occupied by a white fibro-cartilaginous substance, about two and a half inches in length, by two in breadth and depth. It was intimately connected on all sides with the parenchymatous structure of the lung, except at one part, where it was separated by a small oval cavity, filled with purulent matter. Into this point a large bronchial tube entered, communicating with the cavity abovementioned. There was no trace of tubercles in any other part of the lungs. We cannot but agree with M. Andral that, had this man lived some years longer, the cavity in question would have been converted into the same kind of substance with that in its immediate vicinity.

Case 4: In this case, where the lungs contained tubercles in various

stages of advancement, M. Andral found in one of the superior lobes a production exactly similar to that described in the last case, but without any trace of cavity in it or near it. A large bronchium approached this new structure, and there became abruptly annihilated. In two or three other cases there was found a kind of line or cicatrix, as if from a wound, to which places two or more bronchia appeared to direct their course, and there became amalgamated with the adventitious tissue.

Case 5. A man, 24 years of age, appeared to be in the last stage of phthisis, and died two days after entering the hospital. Both lungs were found filled with tubercles, crude or softened. The summit of the right lung was hard and indented on the exterior. Incised at this point several black masses presented themselves, containing soft tubercles in their centres. Several large bronchia converged towards these, and the moment they entered into the melanose substance, their calibre was suddenly diminished or rather annihilated, and they were transformed, as it were, into ligamentous cords.

A number of other cases, more or less similar, are related, but we deem it unnecessary to adduce more examples. Enough has been brought forward here and on other occasions to render it highly probable (for the thing hardly admits of positive proof) that tuberculous excavations occasionally close up and heal. But, in admitting this, we are forced to admit the melancholy truth that, in the majority of cases, where this sanative process has been effected by Nature, it has been of little use to the unfortunate patient—in consequence of the simultaneous existence of other tubercles. The obliteration of an excavation can only be of use, where it is a single excavation, and where no other tubercles exist to go on to the same pathological condition. Such a case fortunately does sometimes occur—possibly more frequently than we imagine. We every now and then meet with patients who are spitting purulent matter, and exhibiting all the symptoms of phthisis pulmonalis. We set them down as lost cases, and give a gloomy prognosis to the friends. But, after a time, the expectoration diminishes, the other symptoms subside, and we conclude that we were mistaken in taking an affection of the mucous membrane of the lungs for a suppuration of tubercles in their substance. Is it not possible that the healing of the tuberculous excavation sometimes takes place in these cases, and that we are not so much mistaken in the nature of the disease, as in the mode of its cure?

Case 6. A woman died, at the age of 40, of cancer in the stomach. Several years previously, this woman was affected with all the usual symptoms of phthisis, and her physicians considered her case as hopeless. Nevertheless, the phthisical symptoms gradually declined, and Madame ——— ceased, at length, to have any cough or expectoration. In the succeeding years the affection of the stomach made progress, and ultimately destroyed her life, but she evinced no symptoms of the pulmonic affection to the last.

The dissection was made by M. Bauniez, in presence of Dr. Chomel

and M. Reynaud. There was cancer of the stomach, which it is unnecessary here to describe. The lungs were sound throughout almost the whole of their extent. Their summits were adherent, on both sides, to the ribs, and at these places presented a blackish colour, and a remarkable depression. In the right lung was a small induration, in which was observed a roundish body of cretaceous consistence, the parenchymatous structure of the lung being quite sound in its vicinity. Contiguous to this were two small tubercular masses. At the summit of the left lung a similar induration was found, in the midst of which was observed a small quantity of tuberculous matter, contained in a circumscribed cavity. There was, on this side, no detached tubercle. These may fairly be considered as vestiges of the patient's former pulmonary complaint.

The foregoing facts are calculated, if not to inspire hope, at least to render us cautious of giving a decidedly fatal prognosis in all cases of apparent phthisis pulmonalis. If, by percussion, auscultation, and other modes of investigation, we find that the lungs are sound, except in one particular spot, there is still a ray of hope that Nature, assisted by art, may triumph over the disease.

ON THE DISEASE CALLED ASTHMA.

It is well known that some French authors have endeavoured, of late, to blot the term, asthma, out of the nosological chart, attributing the phenomena of that disease to organic affections of the heart, great vessels, or lungs. It is probable that this is the true pathology of asthma in many cases, but certainly not in all, or even in the majority. The following observation is by M. Bicheteau, an able pathologist of the French capital.

Case. M. S. a Counsellor, a young man, 28 years of age, of nervous temperament, passed for an asthmatic in his native town, and was treated as such by his physicians. He had habitual dyspnœa, aggravated periodically. In the month of January, 1825, he came to Paris on business, and there he got much worse, in consequence of some altercations and mental perturbations. M. Bicheteau was sent for on the 15th January, and found him labouring under much difficulty of breathing, accompanied by quickness and irregularity of pulse. Yet in the midst of this dyspnœa and laborious exertion of the respiratory muscles, the skin was cool, and his countenance calm. He had cough at intervals, with some sanguineous expectoration. The action of the heart being irregular and tumultuous. The chest was sonorous in almost every point, and when examined by the ear and by the stethoscope, presented the phenomenon of loud wheezing every where except for some space at the lower part of the left side, where the respiratory murmur was scarcely audible. The patient was obliged to keep constantly sitting upright, and changing his position. He had not slept for several nights. He refused to loose blood from the arm, but, with difficulty, consented

to the application of twenty leeches to the least sonorous part of the chest. Toast water, with nitric ether, and pediluvia with mustard. Next day the patient was better. He had slept several hours in the night; but, on the 17th, the complaint increased greatly, and the sense of suffocation was imminent, the act of inspiration being performed with great difficulty, and, as it were, convulsively. He asserted that he must be suffocated if not relieved. The pulse was extremely frequent and irregular, as were the pulsations of the heart—thirst urgent—urine red and scanty. M. Fouquier was called into consultation, and after an attentive examination, pronounced the disease a violent fit of asthma, without any notable lesion of the thoracic organs. In this, with a trifling exception, M. Bricheteau agreed, and it was resolved to bleed from the arm—and reiterate sinapisms to different parts of the body. An anodyne emulsion was prescribed. The patient obstinately refused to be bled; but the other means were put in force. He was relieved. The breathing became more free—his mind more calm—and a sediment in his urine induced our author to hope that he would recover. But this calm was a false one. On the 20th, all the symptoms were intensely exasperated. His difficulty of breathing was insupportable—suffocation became imminent—and he could not rest a minute in one position. A blister to the thorax, and some trifling remedies. Next day the symptoms were still worse, and he insisted on being taken to a MAISON DE SANTÉ in a neighbouring street. He expired a few hours after he arrived there.

Dissection. The heart was rather larger than natural, and there were about two ounces of limpid serum in the pericardium. The right chambers of the heart were rather thin and somewhat enlarged, being filled with black blood and some fibrinous concretions. No morbid appearance in the valves or great vessels. The larynx and trachea presented no trace of disease; but the bronchia and their ramifications exhibited unequivocal marks of chronic inflammation, and were covered on their internal surface with a coat of thick mucus. The right lung was sound—but there were several portions of the left lung in a disorganized state; but still there was a great-portion of it in a respirable condition, and the disease was of ancient date. There was no other lesion in any part of the body.

We have observed before, that certain continental writers, especially M. Rostan, consider asthma only a symptom of some organic lesion, generally of the heart or great vessels. M. Rostan appears to have been led to this conclusion by the examination of a number of old asthmatics, in whose bodies were almost always found traces of organic disease. But these changes were more likely to be the effect than the cause of the long-continued asthma. The very circumstance of asthmatic people being generally long-lived, militates most strongly against the organic theory—for where do we see long life under unequivocal disease of the heart or large vessels?

It appears to us, that a paroxysm of what is called and described as spasmodic or periodical asthma, is much akin to one of gout—that is,

that there is an increase of irritation in the mucous membrane and, indeed, in the whole structure of the air-cells, with an afflux of blood to the parts—the consequence of which, is a constriction of the air-vessels and cells, with the laborious breathing so characteristic of the complaint. This state is relieved, after a certain period, by some discharge—generally an increased secretion from the mucous membrane of the lungs, and the paroxysm ceases, till some occasional cause or constitutional tendency renews the attack. In this way asthmatics go on for many years, and rarely die of the disease under which they have so long suffered. But there can be no doubt that these repeated orgasms in the system, tend ultimately to derange the function and even the structure of the heart and lungs—hence in old asthmatics, we may calculate on finding more or less of those organic lesions, which Rostan and others have too rashly pronounced the original cause of the asthmatic paroxysms.

PARALLEL BETWEEN THE SYMPTOMS OF THE CEREBRAL FEVER AND WORM FEVER OF CHILDREN. BY M. GINTRAE. PHYSICIAN OF BORDEAUX.

[*Journal Général de Médecine*, 1825.]

The similarity, or at least the analogy, of cerebral irritation and worm affections, or more properly speaking, intestinal affections, in children, has deceived the most attentive physicians, and is hourly leading a great many practitioners into erroneous decisions and improper practice, in every country of Europe. How common is it to hear a man speak of the number of cases of acute hydrocephalus or brain fever he has had to treat, and the great many cures he has performed of such; when, in reality, three fourths of these cases were infantile remittent, or intestinal fever. The following parallel, though far from being free from objections, may be of some use to the young practitioner at the bed-side of sickness. It may be premised that there is no one pathological symptom which can be depended on as characterising idiopathic cerebral fever, nor yet the intestinal. We must draw our conclusions from the whole of the symptoms taken collectively.

1. Those children who are most disposed to worm or intestinal affections, are of the lymphatic temperament, weak constitution, and lax fibre. Those most disposed to cerebral irritations, on the contrary, are the robust, the active, the irritable, and of the sanguine temperament.

2. The *former* have large bellies, and eat much. The *latter* have large heads, and the facial angle near the 90th degree.

3. Children who have previously had worms or intestinal affections, are more disposed to have the same again, and, therefore, their previous history should be carefully enquired into. On the other hand, there is but too much reason to believe that the disposition to cerebral irritation is often hereditary, and, therefore, the history of the family is deserving of investigation.

4. Female children are supposed to be more frequently affected with worms, and males with cerebral fever.

5. This last (cerebral) affection often results from external causes, as blows on the head, falls, insolation, suppression of discharges from the neighbourhood of the head, or of cutaneous eruptions. The production of worms and of intestinal affections, is generally facilitated by all debilitating causes, bad diet, too much vegetables, pastry, salted viands, and improper drink, to which may be added, too much medicine.

6. In cerebral fever we may have pain in the belly ; but where there are worms in the primæ viæ, this pain is much greater, and especially when the stomach is empty. It is relieved by the ingestion of food.

7. Vomiting is a common symptom at the commencement of cerebral fever—it rarely takes place in worm affections, unless these animals ascend into the stomach, and then they are often discharged during vomiting.

8. In cerebral affections the appetite is impaired or annihilated—in worm affections it is commonly augmented.

9. In idiopathic cerebral affection the abdomen becomes flattened. Dr. Golis has particularly insisted on the importance of this symptom. Where worms are the cause of the fever, the belly is hard and distended—borborygmi are heard, and there are eructations.

10. Constipation is almost always an attendant on idiopathic cerebral fever, and when the motions appear, they are disordered, generally green, or slimy, or gellatinous. Worms, on the other hand, generally keep up more or less of diarrhœa, the motions being mucous, glairy, and fetid.

11. In worm affections the secretion of bile is increased. Brera regards this sign as very remarkable. It seldom obtains in cerebral affections, where the mouth is generally dry.

12. Cerebral irritations produce, in the beginning, redness at the tip, and along the edges of the tongue—worms, on the contrary, cause the root and middle of the tongue to be covered with a thick mucous fur.

13. The breath is fetid in worm affections, but rarely so in cerebral.

14. Cephalalgia is an almost constant symptom of cerebral affection. It is acute, and often causes the child to cry out, *oh, my head!* In verminous fever, the pain never arrives at this height. It is vague, obtuse, and the child seldom complains of it in particular.

15. In cerebral affections, the child often directs his hand to his head—while in verminous diseases, it is more commonly to the nose that the fingers are directed, in consequence of the itching there.

16. In both kinds of affection, the sleep is occasionally disturbed—but where the brain is the seat of lesion, the sleep is never natural—it is a kind of drowsiness, amidst which the moanings of the child are frequently heard—in worm affections the sleep is profound, though often interrupted by dreams and startings.

17. In both affections we observe grindings of the teeth ; but when there are worms, we will often perceive a movement of deglutition during sleep, hiccup, and occasionally certain convulsive movements of the thumb and index finger.

18. The convulsions which we see both in cerebral and worm affections, may be very severe in either case, and greatly resemble each other; but in the *former* they are generally preceded by pain in the head, drowsiness, fever, &c. whereas, in the *latter* class, the convulsions are rarely ushered in by the symptoms abovementioned.

19. The coma which we occasionally observe in verminous affections, comes on very suddenly; but does not last long, and often leaves no trace of its existence.

20. The delirium, in cerebral fever, is very rarely violent—that produced by worms, occasions more agitation, and more extravagant actions.

21. The paralyzes that occur are always more serious and permanent in the idiopathic cerebral maladies—more partial, transient, and variable in the *verminous complaints*.

22. Dilatation of the pupils often takes place in the *latter* class, and even before the attack of illness, in which case there is no aversion to the light—no affection of the sight. In the early period of cerebral irritation, the eye cannot bear light—the pupils are often contracted—and the dilatation that succeeds is only the result of loss of sensibility in the retina. In these cases there will be perceived an oscillatory movement in the iris, when a lighted candle is brought near the eye, and which M. Odier of Geneva, considers as an indication of effusion into the ventricles.

23. Strabismus is a strong symptom of cerebral lesion, especially of compression—it is rarely observed in verminous diseases.

24. In children affected with worms there is generally seen a dark circle round the eyes—a symptom but seldom observed in cerebral affections. In these *last* the nostrils are dry—in *worm fever* they are moistened with mucous matters. In the *latter* there is often a puffy swelling of the upper lip, the same as is seen in scrofulous children. It is rarely the case in idiopathic cerebral fever.

25. The complexion in worm cases is pale and leaden—in cerebral affections it is very variable, sometimes pale, but more commonly flushed.

26. Rolling the head on the pillow is a sign of cerebral, rather than of worm affection.

27. The pulse, as was before observed, presents, in cerebral irritation, great inequality, as, first frequency, then slowness, and then again great quickness. These modifications are not distinguishable in verminous affections. In these, the pulse is generally small, unequal, and occasionally intermittent.

28. M. Cruvelheir has always observed the respiration unequal in hydrocephalic affections, a symptom which he considers as pathognomonic—but this phenomenon occurs often in other affections of children.

29. The temperature of the skin is elevated in cerebral fever, but in worm-fever it is little above the natural level. In the *former* the heat of the head is much above that of the abdomen—while the reverse is the case in the *latter*. It is on this account that children with worm-fever always feel better after taking cold drink. The skin is also drier in cerebral, than in verminous affections.

30. The emaciation in cerebral fever is very rapid and general—in verminous disease, there is also marasmus, but it is not near so rapid. It is particularly observable in the extremities, while the abdomen preserves its size.

31. In cerebral fever the urine is very scanty, red, and sedimentous. In worm fever, the urine is sometimes clear and plentiful—more frequently troubled like whey, and letting fall a whitish sediment.

32. In verminous affections, there is much instability in the symptoms—thus coma, delirium, blindness, aphonia, &c. succeed each other with rapidity:—while, in cerebral fevers, we find a greater obstinacy—a more sustained march of the symptoms, which are regularly progressive.

The foregoing parallel or contrast, call it which we may, appears to be drawn from the observations of the best practical writers on the two diseases, and is well deserving of attention from the young practitioner. It must be remarked, however, that whatever be the original seat of the disease, when the head becomes affected, even sympathetically, we must attend carefully to that feature of the complaint. Nor does this part of the treatment interfere with that which is properly directed to the expulsion of worms, or the removal of bad secretions from the primæ viæ. These last very frequently determine cerebral irritation, in certain constitutions, and lead to hydrocephalic effusion in the end.

SEA-WATER IN OPHTHALMIA.*

In the April Number of the Medical and Physical Journal, is a paper by Mr. Richmond, on the efficacy of sea-water in arresting the progress of ophthalmia. We shall endeavour to give a short account of it.

In 1815, an ophthalmia broke out in the 2nd battalion of the 11th regiment, then quartered at Gibraltar, which spread with great rapidity and violence. We shall not enter into the minute and unnecessary details of symptoms, as they were those that usually characterise the disease, in its acute form. There were, however, besides intense shooting pain in the eye-ball and fore-head, considerable fever and a strong hard pulse. It were needless to particularize the various *guesses* as to the cause of the epidemic, since they were all tolerably far from the mark. The principal agents in producing the disease appear to have been the strong reflected light from the batteries plaistered as they were with lime, and the limestone floors; and, added to this, the great quantities of sand and dust which were raised by the sirocco winds which blew with great violence—the atmospherical changes too must have had their share in aggravating, if not causing the malady in question. The men were likewise often employed in blasting rocks and other government works in which the eyes were much exposed to the action of particles of fire, &c.

So much for the etiology; the treatment is simple and as it seems

* Med. and Phys. Journal for April, 1826.

successful. It was this : that the men should bathe regularly in the sea, and that each should bring home with him some sea-water with which the eyes were to be bathed seven or eight times a day : strict cleanliness was also enjoined. These means were successful—the health and activity of the men being restored effectually, and the disease, so says the report, finally checked in eight days. But the principal treatment consisted of strict antiphlogistic regimen, venesection, frequently to syncope—strong cathartics, and constant nausea (not carried to vomiting) by small doses of tartar-emetic, aided by the warm bath. The collyria were solutions of the sulphates of zinc and alum, the latter preferable, injected every hour between the eye-lids, which prevents the purulent matter from accumulating and irritating the organ. By these remedies the disease was almost always cured in two weeks, and the sight left unimpaired.

Our author had afterwards an opportunity of putting his *methodus medendi* to the test, at Bombay, where ophthalmia prevailed to a great extent in the year 1823. The patients were the children of the charity-schools, and the sea-water ablutions, &c. aided by belladonna when the pupil was much contracted, were found effectual in checking the complaint. The *granulations* on the conjunctivæ were removed by the application of the sulphate of copper.

EXTIRPATION OF AN EXTRAORDINARY LARGE SCIRRHOUS PAROTID GLAND. BY DR. PRIEGER OF KREUZNACH.

This dangerous, and by some persons deemed impracticable operation, has been performed five times in Germany within the last five years. Dr. Prieger published his first case in which he performed this operation on a woman, in Vol. II. of Graefe and Walther's Journal: the patient was, at the time of writing the present history, in good health, and was the mother of a healthy child. Professor WEINHOLD of Halle, is said to have extracted the parotid gland, partially and completely, three times; the first time a large portion of the indurated gland was removed by applying a ligature around its base: the second extirpation which was only partial was performed by the knife, the trunk of the carotid was laid bare, and the whole of the upper part of the gland dissected out. Professor WALTHER of Bonn, has also described a case which was considered at the time to have been a scirrhus parotid which he removed. He has since, however, changed his opinion, and acknowledges that it was only a sarcomatous tumour which grew over the parotid. The same doubts do not, however, apply to the following case of Dr. Prieger's, which we find in the second number of *Rust's Magazine* of 1825.

Juliane Heimen of Mittelreulenbach, in Saxe-Cobourg, 43 years of age, of a middle stature and weak constitution, the mother of eight children, escaped all the dangers incident to the diseases of children, and enjoyed, even to the period of her becoming pregnant, very good health. When she was about thirty-three, she was confined to her bed for some

weeks with a nervous fever; after her recovery from which, without any known cause, she was attacked in the night with a violent pain in the right side of the cheek and neck, so sudden, that she was obliged to have her head supported by her husband. Without using any medicine, this pain gradually diminished, but how long after, the patient could not exactly recollect. There was no swelling of the part at the time, but the patient perceived afterwards a small hard tumour in the lower part of the gland just opposite the ear; when it was first discovered, it was not larger than a pin's head, but during nine years it regularly increased to the size now about to be described. The swelling was sought to be dispersed by plaisters and various applications, but without avail.

The tumour was hard, uneven, the prominences on it sensitive and slightly reddened, somewhat tuberculated and immoveable. It commenced on the outer side of the right ear, gradually ascended toward the zygomatic process of the superior maxillary bone, protruded over it, extended itself toward the lower eye-lid, from which it was only half an inch distant, and then descended toward the nose and corner of the mouth. The eye was always in a state of epiphora as if the lachrymal canal was stopped up. The nose and angle of the mouth were, from the weight of the tumour, drawn downwards, so that at last there was almost a constant flow of saliva over the chin. The swelling extended over the right side of the chin toward the larynx, which was pressed very much toward the left side; the face was so much turned to the left side by the weight and size of the tumour, that the chin projected over the second left rib. The tumour as it continued to increase, extended backwards and downwards over the mastoid process, pushed up the lobe of the ear, and caused it to project very considerably forwards. The breadth of the lower part of the swelling measured eight inches, and on its surface many blood-vessels were visible.

The patient was very much emaciated, and bore the marks of much anxiety and pain in her countenance: the sleep was very disturbed, the pain in the head frequent, violent, and pulsating; she was obliged to lie on the left side, and complained of great pain in the throat when she attempted to swallow. The pulse, was in general regular, and menstruation had not ceased. The middle of the tumour first began to be painful and red, and the patient every day became more cachectic, so that no doubt remained that the swelling would go over into a *cancer apertus*. The operation was performed on the second day of Dr. P's seeing the patient.

“ *Operation.* On the 7th of September, 1824, the operation was performed as follows. The patient was placed on a mattress with her head supported, and turned toward the left side, and now, taking the tumour in my left hand, and drawing it upwards as much as possible with a convex bistoury, I commenced a semicircular incision from below upwards, the incision commencing near the larynx, and its convexity turned toward the chin, the dissection was continued from within out-

wards, and then from above downwards, so that the greatest part of this enormous mass was separated without much difficulty, with the exception of about an inch of its structure, which was very much hardened, and lying between the angle of the lower jaw and the processus mastoideus, the point in which the swelling commenced. This part was separated with the greatest care, and in the bottom of the wound the *carotis facialis* was distinctly seen pulsating. During the operation, the patient did not complain of much pain, except when the branches of the portio dura, and the maxillaris inferior were cut through; it was then very severe. The quantity of blood lost was very considerable, amounting to twenty ounces, although the vessels were secured as speedily as possible. Eleven arteries, branches of the temporal, transversus faciei and carotis facialis required to be tied. By the most careful and repeated dissection which so large an extent of wound readily allowed, all the parotid was removed: not a trace of the gland itself, or of the glandula accessoria was allowed to remain. The wound was dressed by first bringing the edges together by sutures, over them were laid straps of adhesive plaster, then a compress, and the whole secured with an appropriate bandage. The patient was kept quiet in a dark chamber, and allowed nothing but a little gruel.

The tumour after it had been for some time macerated in water, and the blood drawn out, weighed *three pounds and a half* apothecaries' weight—it was on all sides uneven, tumulated, and throughout of a very fine consistence. With the exception of a few unimportant accidents, as a little difficulty of swallowing, which continued only a few days, and a little cough, which was readily quieted by the ordinary remedies, nothing peculiar happened during the process of cure. On the 10th of September, the third day after the operation, some of the sutures were removed, as the adhesive plaster was found sufficient to hold the edges together. On the 12th, all the sutures were taken out. The ligatures began to separate on the 11th, and on the 20th, they were all withdrawn. The granulating process proceeded most rapidly, every day there was an evident improvement, and on the 1st of October, the patient left the hospital perfectly cured with a cicatrix about three lines broad in some places, and set out on foot to make a journey of eight hours (almost 20 English miles) to her native home.

The perusal of this case shows that the operator is a bold surgeon, and a good anatomist. It is to be regretted, that he has not described the structure of the tumour more accurately, as from what he has said of it, it is impossible to judge whether it was scirrhus or not. The rapidity of the cure is almost as astonishing as the extent and progress of the disease. RICHERAND, BOYER, RICHTER, and Mr. ALLAN BURNS, have all contended, that such an operation was impossible; the enterprising spirit of modern surgeons has shown the contrary, and the adopted motto appears to be *nil desperandum*.

MENTAL ALIENATION.*

Some time ago the celebrated Esquirol offered a prize for the best Essay on Insanity, and seven memoirs on this difficult subject were presented. The jury or commission appointed by the founder of the prize to examine and judge of them, have reported on three of the candidate essays only, as being more strictly on the subject proposed for investigation. Of these three essays, one appears to be treated rather magisterially by these plenipotentiaries. "Two of the memoirs," say they, "are composed in the spirit of rational and experimental medicine;—the third, on the contrary, belongs to the *anonymous* school of those physicians (happily not numerous) who think that diseases may exist without the lesion of any organ, and who hesitate not to introduce metaphysics into medicine." It is on this last memoir, of the *anonymous* school, that they first report, and we shall claim the privilege of commenting on their report as we proceed.

I. The Memoir is entitled—"On the Distinction between Idiopathic (Essential) Alienation of the Mind, and that which is Symptomatic of Cerebral Affections." Under the first class, the author places "alienation purely moral," including certain cases of monomania, or delusion on a single subject—nostalgia—erotomania—fits of jealousy—thirst of vengeance, &c. The plenipotentiaries are up in arms at the supposition that the slightest deviation from perfect sanity of thought, word, or action, can depend on any thing but a *lesion of the brain*. They do not allow for any obliquity of the intellect or mode of thinking, from the force of habit or education. Thus, if a man were to present himself to this jury and aver (what he really believed) that he every day saw a supernatural being in the air, and not only saw him, but heard him speak there, the jury must, in conformity with their doctrine, not only put him down as insane—at least, upon the above point—but they must also place this mental hallucination to the score of a corporeal or material disease of the brain. And yet, whole nations entertain ideas, and firmly believe in absurdities equal to, or greater than, those of

——— the poor Indian whose untutor'd mind,
Sees God in clouds, and hears him in the wind.

From this it will be evident that if every *erroneous idea* be considered as dependent on corporeal lesion, there is not a man on earth who has a sound brain. For our own parts, we are inclined to believe, with the author of the stigmatized essay, that certain *moral causes* will produce impressions on the thinking principle within us (whether that be an immaterial principle in the brain, or the brain itself) which lead to erroneous conclusions, constituting, to all intents and purposes, *INSANITY*; and yet, without any disease, or appreciable alteration in the material organ of thought. But these considerations are far too refined for the jury. "Let us," say they, "recollect that the object of medicine is

* Archives, October, 1825.

man, considered in the *material* part, of which his *double being* is composed." (Consideré dans la partie matérielle dont son *double être* est composé.) 'The devil it is! Why, yes—if by *medicine* they mean *medicines*, such as jalap, calomel, or the like—certainly these have only to do with the *material part* of man; but if they mean to exclude man's *moral nature* from the study of medicine—and to exclude the physician from the employment or the suggestion of *moral remedies*, then we say that the jury are bad physicians, whatever they may be as pathologists, restricting the latter term to the mere study of morbid anatomy. Do they not know that the best way of restoring reason, even where the insanity is evidently dependent on corporeal disease, is to combine moral with physical treatment? But it may be said that, as the brain is unquestionably the organ of thought, so any derangement of thought must be the consequence of derangement in its instrument. We do not think so. A deranged musical instrument will, undoubtedly, bring forth bad music—but so will the best instrument in the world, under certain impressions of the fingers. Moral impressions may lead the imagination and the judgment astray, and yet the brain may be sound in structure. But if for *structure* we substitute the word *function*, then we acknowledge that it will be difficult, or impossible, to prove that insanity is ever unconnected with an *affection* of the brain—because *thought* is the function of that organ, and derangement of thought is synonymous with derangement of cerebral function. Still we think that, for all practical purposes, there is sufficient ground for this distinction of insanity into that which is produced by moral causes, and unaccompanied by any symptom of disease—and that which, however caused, is accompanied by the phenomena of disease while living, and the material traces of it on dissection.

If this distinction of our author (which we think very proper) has caused such offence to this *physical jury*, they acknowledge that the portion of his essay which treats of insanity, as connected with and dependent on corporeal disease, is of very meritorious construction, not only as regards the description, but the etiology, pathology, and treatment of the disease. They remark one thing, however, which certainly appears a little extraordinary, viz :—that, from the pathological conditions of the brain, in symptomatic insanity, he has carefully excluded the term *phlegmasia* or *inflammation*, for which he seems to them to have a veritable antipathy. We wish they had given us a more detailed analysis of this author's essay.

II. The second Memoir bears for title—" *Essay on the Nature of Mental Alienation.*" The author asks—"are there any particular alterations found in the brains of the insane? If so, what is their nature? what connexion or correspondence have they with the symptoms? Such is the triple problem which the author proposes to solve. The memoir is naturally divided into three parts. The first turns, of course, on the pathological anatomy of the brain and its dependencies in mania. The principal alterations of the brain are, injection, turgescence, increase of

firmness, and the reverse, or softening—ulceration, hypertrophy—atrophy—accidental productions—hæmorrhage, &c. To these may be added a peculiar appearance, noticed by Esquirol, especially in indurations of the encephalic mass, viz.—the existence of holes or cavities in it, resembling those which we see in Gruyere cheese. This author, contrary to the former writer, regards all these various deviations from a healthy appearance in the brain, as resulting from acute or chronic inflammation. He next adverts to the morbid anatomy of the bony and membranous coverings of the brain in insanity, tracing them all to the same cause. He relates some cases where the nerves, issuing from the brain, were diseased. The second part of the essay contains a succinct history of 37 cases, (under the head ENCEPHALITIS,) of acute delirium, acute mania, acute monomania, chronic ditto, simple dementia, complicated ditto. These are accompanied by observations which have, for object, to establish that the acute delirium, mania, monomania, and dementia, are neither more nor less than encephalitis in different-degrees of intensity. The third division of the memoir is a kind of resumé, in which, after comparing the symptoms during life, with the appearances on dissection, he endeavours to demonstrate anew that the said symptoms and organic changes belong to phlegmasiæ of varying intensity:—concluding, 1^{mo}. That, in the brains of those who die of insanity we shall always find changes of structure—2^{do}. That these changes are the consequence of inflammation acute or chronic—3^{io}. That there exists a correspondence between the symptoms and the organic changes—and that the names of monomania, mania, &c. ought only to be employed as representing degrees and stages of encephalitis. From this it will appear that he answers his three questions, as originally proposed, in the affirmative. He appears to have been placed in circumstances favourable for the elucidation of his subject, as he avers that he is possessed of the particulars of more than one hundred cases of insane people, whom he had an opportunity of examining after death, and comparing the symptoms with the dissections.

Biassed, as the jury evidently is, in favour of insanity, being *always* a corporeal disease, they are unwilling to adopt this author's doctrine in its fullest extent—because, on a minute analysis of the histories which he has given in his memoir, they have not been able to observe that strict connexion between the symptoms and dissections on one hand, and the mental alienation on the other, which he has insisted on. They consider that, in many of his cases, encephalitis has appeared to have accidentally supervened on insanity, and was in no way connected with the cause of the disease. They remark also, that many of the cases are defective, in respect to important details, and that his reasonings upon them are often far from being strictly logical, or his deductions legitimate. His cases, it is true, are numerous; but, as Morgagni justly observed—“*non numerandæ sed perpendendæ sunt observationes.*” In short, they hesitate not to aver, that many of his cases are not at all cases of acute mania, as he would make them, but *bonâ fide* cases of encephalitis—a circumstance that introduces much confusion into a memoir, in many other respects, valuable.

III. The third Memoir is entitled—“*On Epilepsy, considered in its Relation with Mental Alienation.*” This is divided into four sections, the first exhibiting a table of the dissections of epileptics—of epileptic insane—of insane without epilepsy—and of patients affected with diseases of the brain approaching to epilepsy and to insanity. The second is on epileptic maniacs—the third on etiology—the fourth on the treatment of insanity.

The first section contains four cases, with dissections, of simple epilepsy—and 14 dissections of epilepsy complicated with insanity. Five cases, with dissections, happened under the eye of M. Esquirol himself, and being well authenticated, we deem it right to notice some of them here.

Case 1. Saillant, aged 20 years, had been subject to epilepsy for some time previous to the month of May, 1825, when she became insane. On the 26th of that month she had 10 or 15 violent paroxysms, succeeded by profound coma, startings, tetanic rigidity, and other formidable symptoms. In this state she lingered twenty days, and then sunk.

Dissection. Slight meningitis—turgescence of the cerebral vessels—thickening and induration of the cortical, as well as the medullary substance of the brain. In short, this was a fine example of *induration* of the brain.

Case 2. This was a female, aged 32 years, who was first seized with mania of a furious kind. The mania continued long, and she was several times discharged the hospital uncured. In two years it changed into dementia, with a monthly paroxysm of excitation, and afterwards epileptic convulsions, tetanic rigidity, &c. In one of these paroxysms she expired, on the 7th January, 1825. On dissection there was found meningitis, with effusion into the cavity of the arachnoid—great injection of the cerebral vessels, especially of the cortical substance, which was soft—while the medullary was indurated, injected, and full of red points when sliced.

These are specimens of the diseased appearances which our author found in the insane and epileptic. He remarks that, in 18 dissections of epilepsy and epileptic-mania, there were 11 instances of *induration* of the brain—four of *softening*—and three where the consistence of the brain was natural. He thinks that such a large proportion of the appearances above-mentioned cannot have been accidental, but must be viewed in the light of pathological causes of the living phenomena. His mode of explanation of these diseased conditions of the brain is more satisfactory to himself than it will be to others. Both induration and softening are of the same nature—both are produced from chronic inflammation. But how is this inflammation produced? “In a paroxysm of epilepsy,” says he, “the blood rushes to the brain—the congestion, thus repeated often, establishes a centre of fluxion in the organ—and this centre of fluxion continuing, determines a kind of combina-

tion of the blood with the cerebral substance, by which its density is increased." Thus then, according to his own explanation, the induration or the softening of the brain is not the *cause* but the *effect* of epilepsy. And so we verily believe it is. In fact, we are disposed to think that the same observation will apply to almost all other diseases as well as to insanity. It is hardly possible that the *causes* of disease can be revealed on dissection. They are too evanescent for the scalpel. The *function* of a part must always be disordered before the *structure* is altered, and the causes of disordered function are invisible, or long fled before dissection can be performed. We shall endeavour to illustrate this. A man is exposed to wet and cold, and does not change his clothes—or he sleeps in damp sheets. In a day or two he is seized with pain in his side, and cough. Remedies prove unavailing, and, in a fortnight or three weeks, he dies. By dissection, we hope to find the cause and nature of the disease; we do find a collection of sero-purulent matter in one of the cavities of the pleura. Is this the cause of the disease? No. It is the cause of *death*, but not of the disease of which the man died. Cold and wet to the surface excited inflammation of the pleura—this inflammation terminated in effusion—and this effusion killed the patient. Dissection, therefore, can rarely reveal to us the causes of disease—but only the ultimate stage or condition of the disease itself, by which death is caused. Into how many errors have medical men been led by neglecting this distinction! Thus, they open a man who died of fever, and they find inflammation of the brain. Oh, say they, this inflammation was the cause of the fever—and with just the same reason that the French author makes hardening of the brain the cause of epilepsy, though he, in the same breath, accounts for the hardening by the repeated attacks of the disease!

As for the causes of insanity, we believe they are such as first disorder the *function* of the brain—thought. They may be either moral or physical—as misfortunes, grief, &c. on one hand; or as intoxication, disorders in different parts of the body, &c. on the other. Now where the causes are moral, how absurd would it be to treat the disease in the same way as where the causes are physical? Two men present themselves to a physician—both with mental alienation. The mental derangement is caused, in one case, by losses in trade, or by wild speculation—in the other, by intemperance, producing disease of the liver and digestive organs. If insanity consists in a certain pathological condition of the brain, we ought to put these two patients upon the same course. If we are not to look to man's moral nature, we have only calomel and sarsaparilla for the man who lost his fortune and his reason by speculation, as well as for the man whose liver and stomach are disordered from brandy, and whose brain is symptomatically affected from the chylopoietic derangement. Here we see the absurdity as well as the danger of not keeping our eye on the *morale* as well as the *physique*—and hence the utility in a practical point of view, at all events, of dividing insanity into mental and corporeal.

We do not deem it necessary to dwell on our author's *treatment* of

epilepsy and insanity. We believe that, in this country, we are quite on a par with our neighbours, as to the treatment of mental, as well as corporeal diseases. It is true our Gallic brethren entertain a very mean opinion of us in therapeutics, in consequence of the energetic measures which we pursue in dangerous diseases, and of our entertaining opinions that certain medicinal agents have *specific* effects on the human frame. Hence they characterize our prescriptions, as polypharmaceutic and heroic—and our practice as completely empirical. We would recommend charity to the profession on both sides of the channel. It was an observation of Celsus, or rather of the physicians in his time, for we do not think he practised medicine, that the people of different countries required different modes of treatment, even in the self-same disease. If our polypharmacy would poison Frenchmen, their slip-slop treatment would murder Englishmen—hence, perhaps the account is pretty nearly balanced between them.

We must now draw to a close. We forgot, however, to mention that the author of this last memoir comes to the conclusion, (and in this conclusion he is supported by the decision of the jury,) that, in epilepsy, the seat of the disease is in the *medullary* portion of the brain, whilst that of insanity is in the *cortical*. This is also the opinion of Foville, Delage, and Pinel Grandchamp. We shall introduce the following short extract, as perhaps not quite unworthy of attention in a practical point of view.

“ There exists a principle in physiology which may serve as a basis for the treatment of insanity, viz. that the more an organ is exercised, the more it becomes developed, the more it abounds with excitability—and the less are other organs developed and supplied with excitability. Hence it is necessary, in treating insanity, to leave in absolute repose the disordered encephalon, and augment the activity of other organs in the system.” The jury cite a fact in support of this principle, namely, that all epileptics, on coming into hospital, experience a great diminution in the force and frequency of the paroxysms. In their new abodes they have few or no cares—no wants to provide for, or think about—and their brains sink, as it were, into a state of absolute repose, as compared with their former condition. After a time they begin to think and to become disquieted, and then the epileptic paroxysms return with their accustomed force.

Much as the jury applaud this last writer, they cannot coincide with him upon all points. They are disposed to admit that epilepsy is always occasioned by simple inflammation of the brain. The suddenness of its attacks, the occasional length of its intermissions, and the perfect integrity of intellectual functions during those intervals, in numerous cases, demonstrate the absurdity of this exclusive doctrine. As a *resumée*, they observe that the general results to be gathered from these memoirs are as follow :—1^{mo}. Mental alienation leaves in the brain traces of its existence, almost constant. 2^{do}. The traces left by insanity, or the alterations discoverable in the brain after death, are generally those which characterize acute or chronic inflammation. 3^{uo}. These

alterations in the brain produce symptoms differing according as the change is in the cortical or the medullary substance: thus slight lesions of the superficial cortical structure are announced by disturbance of the *intellect*—by an alienation of the understanding—whilst lesions of the medullary portion of the brain are characterized by disturbance of the moving powers, to wit, by epileptic affections. But such is the intimate connexion between the cortical and medullary substances of the brain, that lesions of the one are soon propagated to the other—hence the frequency of insanity and epilepsy in combination or in succession.

This is a very pretty theory on paper; but we much doubt whether it will stand the test of accurate clinical observation, and minute *post mortem* investigation. Such as it is, reader, we give it unto thee.

ON BLEEDING.

Referring to the observations in the last Number of the Medico-Chirurgical Review, on the Pulse, (Review of Dr. Butter's Work) as indicating the propriety of bleeding, the following memoranda may perhaps be considered as not irrelevant.

In an affection of the head, with great tightness across the forehead—where the pulse was of a wiry hardness, contracted, and in frequency 120, bleeding generally and locally, purgatives and sudorifics, had been used for some days before the writer saw the patient;—the above state of pulse continuing, seemed to indicate a continuance of the plan; bleeding was twice repeated—pediluvia used, and the nape of the neck blistered, without any diminution of symptoms. The long-continued want of rest induced the writer to direct a dose of æther, compound camphorated tincture, and camphor mixture, to be given at night. The effect was favourable—soothing the patient and producing so favourable a change in the pulse, as to induce a repetition of moderate doses of the same remedies every four hours, which terminated in complete recovery.

Sometime afterwards, the writer was called to a patient far advanced in pregnancy, in whom nearly similar symptoms had been under treatment for several days—by local and general depletion—daily purgatives—sudorifics, without removal of the pain, or reduction either of the frequency or hardness of the pulse; the former case was mentioned to the two gentlemen in attendance, (who contemplated a fatal issue of the case,) and the same means were resorted to with similar success. Yet in neither case would such means have been justified, or would the omission of bleeding have been warranted in the first instance.

The writer has witnessed in an extensive degree the treatment of the epidemic cholera in India, and can safely affirm, that death has in many instances been hastened by bleeding; which is not surprising, for never were means used more empirically than in this disease, and *even by authority*—yet bleeding, where eighteen or twenty ounces could be obtained from an European, and ten to fourteen from a native, was *often* useful, (no treatment was uniformly useful) not only by restoring the balance of the circulation, but by taking off the irritability of stomach.

In the first instance in which the writer felt justified in using the lancet, the irritation of stomach ceased when about ten ounces of blood had been drawn, in a native woman, and the administration of internal remedies was attended with success.

Dr. Gregory (following the anti-mercurialists) has censured the use of blood-letting in this disease, unguardedly, if not unjustifiably—because he has not data on which to qualify, even a Professor, for censuring those who are eye-witnesses of *effect*. Thus medical men, who have not seen disease in Tropical climates, censure the use of the only remedy, by which these diseases can be cut short, and which it would be justifiable to use, were the bad effects, such as they are represented to be, but which they are not, when mercury is properly used.

Bleeding and mercury require judgment to decide, when, and to what extent they are to be used, but are not to be laid aside because theories are formed in opposition to the results of practical experience; or because they may be misused, amongst the numerous persons let loose on the world as practitioners.

P.S.—It may be worthy of notice as a fact, that in eighteen years residence in India, the writer only saw one case of stone in the bladder in a native—none in Europeans. MEDICUS.

THE CHEVALIER DE BUTEL ON PLAGUE.*

Although we have no hope that the ultra-declainers against contagion, quarantine, &c. will ever listen to any facts which militate against their own doctrines, still we deem it proper, from time to time, to oppose facts to arguments, lest, by mere dint of repeated assertion, the latter should usurp a place in men's minds to which they are not entitled by their own intrinsic merits. Our Gallic brethren, who were long good Catholics in the creed of pestilential contagion, as well as in certain other creeds, have at length been *infected* with the doctrines of Maclean, now when they have entirely lost all reputation in the minds of the profession on this side of the channel—just as Brunonianism began to flourish abroad after it had fallen into decay at home. The contagionists and anti-contagionists are ranged in hostile array throughout the medical societies of Paris, as they were for a while in this country—where they now only occupy the columns of newspapers, having been driven from the sober discussions of medical men.

The paper which we are about to notice, is from the pen of the Chevalier de Butel, who resided fifteen years at Alexandria, and nine at Constantinople, where he had ample means of making most minute observations on the plague of the east. We shall endeavour to condense the more important facts into as small a space as possible. After observing that the universal opinion in Egypt is, that the plague is imported there from Constantinople; he states that he arrived at Alexan-

* Le Chevalier de Butel. Journ. Univers. Jan. 1826.

dria in the year 1787, at which period Egypt had been entirely free from this scourge for the space of eight years. This good fortune lasted for four years more, namely till the beginning of 1791, when it was doomed to suffer a terrible calamity. In the November preceding, a Ragusan vessel was freighted at Constantinople for the transport of a great number of Georgian, Circassian, and other young recruits for the service of the Beys of Egypt. In the course of the voyage, several of these had been carried off by plague, as well as the captain of the vessel, and some of the sailors. The vessel was obliged to stop at Rhodes to recruit her crew, and cast anchor at Alexandria in December 1790. As soon as this event was known, and also the circumstance, that the plague had been raging at Constantinople when the vessel sailed, a general apprehension prevailed in Egypt, that the contagion would explode in the spring following. Many of the Mamelukes died soon after their debarkation at Alexandria, and in their route to Cairo. Some accidents happened from time to time in particular houses, but only in those of the Beys. The Sheck El Beled had a box of furs consigned to him by the vessel above-mentioned, on opening which, two of the domestics were seized with the plague and quickly carried off. In the month of March, the predicted event took place. The plague burst forth with unexampled fury and fatality—first among the Beys, but soon afterwards from towns to villages, till it had over-run almost the whole of lower and upper Egypt! More than two villages were entirely depopulated, and in Cairo alone, the mortality was seldom less than three, and often as high as six thousand *per diem*, from March till June, 1791! At the conclusion of this tragic scene, the keys of 7000 desolated houses were consigned to the care of Ismael, Pacha of Cairo, who, more fortunate than El Beled, and almost all the Beys of Egypt, escaped this dreadful scourge.

To attribute this destructive malady to any deleterious miasmata in the air, is, in our author's opinion, most preposterous. The air of Egypt is proverbial for its clearness and general salubrity—and if the causes of the plague were endemic, why did they lie dormant for twelve years, and only shew themselves soon after the arrival of a vessel unequivocally bearing the disease among her crew? Let us now turn to the sanitary laws so much despised by the Medico-Philosophists of our times.

No sooner had this explosion of plague taken place at Cairo, and other places, than the European merchants at Alexandria hastened to close their accounts with the people of the country, and prepare for close segregation. The French merchants, with their consulate, secluded themselves in a pile of buildings having but one common entrance from without, yet with a free communication within by means of a common corridor and galleries. As soon as all had signed the agreement for seclusion, our author drew up a code of quarantine, or rather of sanitary laws, to the observance of which they all took a solemn oath. Two Commissaries, relieved every twenty-four hours, were appointed to see the laws carried into the most rigid execution—and

nothing could be received or sent out without their express permission and supervision. Three barriers, within the common entrance, were established as additional checks and preventives against the introduction of suspected articles—and, in short, the most scrupulous measures were adopted to guard against contagion. The detail of these precautionary measures we may pass over; but we shall draw for a moment the attention of our readers to a circumstance which occurred at Cairo. The French merchants there segregated themselves as at Alexandria, but the buildings which they inhabited had each an entrance into the street, so that the observance of the sanitary laws was left at the mercy of each individual family. Among these was the *Sieur Mélan* who, one day on being apprised of the illness of a Bey who owed him a sum of money, broke the code of restrictions, and had communication, though in a very slight degree, with a few whom he employed. In a few hours afterwards he was seized with plague, and died, together with three of his servants!—But to return to the Alexandrian Franks. During the period above-mentioned (upwards of 120 days) this little garrison continued in the very focus of contagion—in the midst of thousands dead and dying of plague, yet perfectly free from that and all other diseases. “*Nous nous trouvâmes au centre de la contagion, non-seulement spectateurs passifs de ses ravages mortels, mais encore exempts de toutes maladies.*” As great mortality prevailed among the Frank seamen in the port of Alexandria, our author caused as many as possible of them to be brought under the walls of the building, where he and the Surgeon-Major of the Navy examined them minutely, though rigidly avoiding actual contact. In this way they had opportunities of making many observations on the symptoms of this disastrous scourge. Of all the phenomena, there were only two which were never absent—inflamed appearance of the eyes and countenance, and swelling of the tongue. These, together with a difficulty of speaking and a tottering gait, were certain criteria of the plague. The other symptoms were far from being uniform or constant. The pain of head and nausea by which some were tormented, did not obtain at all in others. Inflamed throat was more constant than most other phenomena, with the exception of the characteristic symptoms above-mentioned. There were instances where no eruption or buboes appeared; but, in general, there were from one to seven buboes exhibited in each case. Some presented petechiæ—and some an eruption resembling flea-bites. The pulse could not be examined, for obvious reasons. He who hazarded such an experiment, would not have lived many days to tell the tale! But whatever was the variety of symptoms, there was unfortunately only one mode of termination. *Not a single sailor, from March till June, recovered from this dreadful malady!* Death took place between the third and the seventh days. This is a melancholy portrait in a *therapeutical* point of view; but it is exceedingly interesting and important in its *prophylactic* relations. If we cannot cure a disease, it is surely a reason why we should use every precaution to prevent it.

Early in June, the atmosphere of Egypt began to present some clouds,

which drifted incessantly, and with extreme rapidity, during three months in succession, from N.W. to S.E. to be lost among the mountains of Ethiopia, and to supply ultimately the waters of the Nile. These flying clouds diffused a vapoury moisture through the air, which penetrated into every thing—so that linen locked up in the securest manner, became quite damp in a short time. To this heavy dew the Egyptians are indebted for delivery from the plague. In the course of 15 or 20 days it invariably extinguishes every symptom and every germ of the disease. Even from the very commencement of these dews, the plague becomes greatly mitigated in its fatality.

Dr. Maclean and his disciples will tell us that the rise and cessation of plague at particular periods of the year, are proofs of its being a product of the soil or of the air—but they will not condescend to explain why small-pox, measles, and other diseases, acknowledged to be contagious, are greatly influenced and modified (as to their spread or development) by particular seasons and periods of the year. And how did this little secluded band of Franks manage to breathe the same air and live in the very midst of the dead and dying for four months, without suffering any inconvenience; whilst their less fortunate countrymen, exposed to communication with the inhabitants, almost all died? The conclusion which every unbiassed mind must draw from such a fact is irresistible; and yet the non-contagionist will not pay the slightest attention to it. Their business is not with *facts*—they hate the name of *facts*. All they want is paper on which to array *words*. Because we are not acquainted with *all* the laws which govern the causes of plague, it is attempted to renounce those laws which we do know. Because we cannot explain why a fall of rain or repeated falls of deavy dews in Egypt annihilate the germs of plague, we are also to disregard *seclusion*, which we do know to be a certain preventive of the malady! Because the plague is not every year in such a state of virulence at Constantinople as to cause its dissemination thence to the neighbouring countries, the non-contagionists would persuade us not to believe that it ever was or can be carried by men or goods through the Dardanelles! Because the port of Alexandria is constantly open to vessels from plague countries—because the climate of Egypt is, *in general*, so inimical to the existence of plague or its cause, as to annihilate both the moment they arrive there—because the inhabitants take no precautions of a quarantine nature; are we to infer that the contagion of plague is a chimera—that it never entered the port of Alexandria—that it never spread among the inhabitants—and that the seclusion of the Franks, was an unnecessary precaution against a phantom which had no existence?

Among the facts which our author has ascertained during his long residence in Egypt is, the complete protection which one attack of the plague in that country gives against future accidents. This circumstance he has verified by repeated observations.

But to Constantinople, where our author resided nine years, ardently endeavouring to investigate the nature and cause of this fatal scourge. In this ancient capital, where theorists have not been able to find lakes,

marshes, or other sources of pestilential miasmata, the plague is, as it were, domiciliated, so as never to be entirely out of view. It is, therefore, looked upon as small-pox or measles, which must come sooner or later—in a milder or more aggravated form. This disease does not produce such destructive ravages in Constantinople as in most other countries, nor is it equally prevalent in all years. It has its phases of lenity and destructiveness, through which it runs its mysterious course—sometimes appearing highly contagious, and at others very little so. It mocks equally the timid and the courageous. The seasons and the elements appear to have no remarkable influence over it. When it is at its lowest ebb, the mortality is perhaps not more than triple the common or natural ratio of a large city like Constantinople; while, at its height, there are daily immolated at its shrine from four to five hundred individuals. When it happens to continue a few years unusually mild, there is generally what is called a *restitution*, when (as in the year after the great Egyptian plague) fifteen hundred corpses have been counted issuing in one day through the single gate of Adrianople! In general, however, it is milder at Constantinople than in most other countries—its course being slower—and the proportion of recoveries to deaths greater. But the most remarkable singularity of the Byzantine plague, (and which, if true, as it is positively asserted to be by our author, must completely defy human sagacity to unravel) is, that it is almost incapable of affecting any but the inhabitants of the Levant. This is a fact, our author avers, which he has verified by nine years attentive observation. The exceptions are so very rare as not at all to affect the truth of the general rule. And hence it is, that the Franks take no precautions against the plague. “I have seen,” says M. De Butel, “the plague ravaging the quarters of Galata and Pera, whilst the European Ambassadors were giving a succession of fêtes, balls, and assemblies, consisting of several hundred persons in the interior of their residences, while at least an equal number of lacqueys were lounging in the anti-chambers—and this at a time when the plague was ravaging the habitations of the Turks and Greeks in every direction around them—all this too without producing the least alarm in the minds of the Europeans, who considered themselves, and were in reality, perfectly secure from the malady that surrounded them.” Hence it is, that we see strangers from all parts of the world perambulating the streets, strolling through the bazaars, and frequenting the public places of Constantinople, without becoming infected with the plague. A curious circumstance may here be mentioned, namely that, one year out of the nine, which our author passed at Constantinople, was signalized by a total cessation of the plague; but at this period the air became so corrupted that a fever of a very malignant nature spread epidemically, and proved exceedingly destructive to the Franks, who lost more in that one season than they had done during the whole of the nine years which our author passed in that capital. M. Butel is of opinion, and we agree with him, that, in modern times, many fevers have been confounded with the true plague, and that, thus, much discrepancy of opinion has

crept into the discussions of medical men. He has come to the conclusion, certainly from an experience and sphere of observation unequalled in the present day, “ 1^{mo}. *That the plague is communicable only by contact—that its miasms attach themselves to every material capable of harbouring them, and have no chemical affinity for atmospheric air, which is incapable of sustaining or transporting any particle of these miasms—that, consequently, a person may enter the room in which a patient with plague is confined, with perfect safety, as long as personal contact is avoided.* 2^{do}. *That those countries which are infested with malaria, marsh exhalations, and other causes of fever, not only do not engender plague (non-seulement n’engendrent point la peste) but are no more exposed to its ravages than the most healthy countries and cities.*” Speaking of the plague in Egypt, our author observed that the houses of the Beys, which were unquestionably the cleanest and most airy in the country, were the first to be infected, and, in short, completely depopulated. To this observation, which is of the greatest importance, he adds that, he has several times seen the plague at Constantinople ravage those quarters of the city which were the most elevated, and consequently enjoying the purest air, and inhabited by the better classes of society, while the quarter of Balata, the lowest in the capital, at the bottom of the harbour, a kind of Cloaca inhabited by Jews (au fond du port, espece de cloaque habité par les Juifs) the very dregs of the people, was completely exempt from the disease. 3^{uo}. *That no remedy has hitherto been discovered of any avail against the true plague—and, consequently, that all recoveries are owing to Nature; or in other words, to the efforts of the constitution.*

It was remarked, that there was something in the nature of the plague at Constantinople, or of the European constitution, which rendered the latter very unsusceptible of the contagion. Granting that this be the case, for which, however, we can by no means vouch, there can be no doubt that, as the disease appeared in Egypt, it was highly contagious, as our military officers, as well as those of the French army, had dear-bought reason to know. It is evident too that, so late as 1813, it produced dreadful devastation in Malta, whatever was the source whence it came. It is also known that Dr. Maclean caught the plague while in the Greek Pest-house in Pera—and our author records the case of an English physician, who inoculated himself (we suppose he alludes to Dr. Whyte) with matter from a pestilential bubo, and took the disease, though he did not *then* die of it, but six months afterwards, as taken in the natural way. All considerations, therefore, induce us to agree with the concluding sentiment of our author. “ Amidst the mysteries and obscurities which encompass the subject of plague, one truth is clear, the existence of certain means of prevention or preservation, which Providence has placed in our hands. It is the only antidote against this dreadful poison. This is QUARANTINE.” It would be well for our senators to pause on such documents as these, and consider well, before they abrogate those sanitary laws, which we have strong reason to believe, are the surest bulwark against the introduction of a disease over which medicine has so little control.

ALLEDGED INFANTICIDE.

A married woman was indicted at the Sussex Assizes, August, 1825, for the murder of her infant, under the following circumstances. She was servant in a family at Worthing, and dismissed when found to be pregnant. She took lodgings, but was delivered of a child in a field near Bellingshurst on the 14th May, 1825. She returned to her lodgings, and her appearance exciting the suspicions of her landlady, she first denied, but afterwards acknowledged that she was delivered of a child, while getting over a stile—that the child in falling to the ground was killed on the spot—and that she had buried it in a ditch. The child was found in a muddy ditch, its head fractured, and some of the mud in the trachea, bronchia, and even as far as the air-cells of the lungs. The surgeons examined, gave it as their opinion, that the child's death might have been occasioned in the manner stated by the mother, and that, supposing the child to be apparently dead from the fall, it might have sufficient life to imbibe, by convulsive respiration, the liquid mud found in the windpipe and lungs. The prisoner was acquitted.

Mr. Martin, surgeon, of Pulborough, who has published this case, has also appended some remarks, and stated some experiments bearing on the point. A rabbit was drowned in a trough filled with dirty water. In twenty minutes afterwards it was examined, and the bronchia were found filled with dirt and froth—the air-cells were found injected with dirt. Several other experiments, all coming to nearly the same result, were made; but one of them deserves particular notice. “A cat was dashed against a wall and placed in the trough, in a state of insensibility, and died with so little struggle, that it seemed to make no effort to breathe. The lungs were nearly in the same state as the rabbit's in the last experiment—a little dirt had found its way into the bronchia and some of their larger branches.”

We acknowledge that appearances were exceedingly strong against this woman; but still as there was a *possibility* that the circumstances were such as she stated, we think the Jury gave a proper verdict. In the experiment last stated, the mud had found its way into the bronchia, although the cat might be considered as killed before immersion. Now if the child had dropped suddenly from the mother, as we know it sometimes does, and, if in staggering she had trampled on the head of the foetus, the fractures mentioned above might have been produced. In the state of mind in which this unhappy woman was, she might have buried the child, from the very fear of being suspected of infanticide, after such an accident to the head. And as there must necessarily have been much precipitation in such a transaction, some small remains of life might have still existed in the infant, and some convulsive motion of the diaphragm and other muscles might have produced the inhalation of the muddy water. We confess that this line of argument is pushing mercy to its utmost stretch of clemency—perhaps of credulity—but if there be any case in which mercy should predominate over justice, it is in cases of infanticide. In this, as in suicide, we believe that the *mind* of the actor is deranged nine times out of ten. The suicide suffers the

greatest punishment which human law can inflict—death. The infanticide must suffer more than the pains of death, in working herself up to such a violation of the strongest of Nature's ties. If then there be the smallest *possibility* of innocence, or of momentary insanity, let her have the benefit of it. The tone of Mr. Martin's remarks seems more inclined towards rigid justice, in such cases, than those which we have ventured to make; but as God is supposed to be merciful as well as just, why should not man imitate his Creator?

POISONING BY CANTHARIDES.

On the second of May, 1825, Dr. Torrie was called to a man who complained of much heat and pain in the region of the stomach, which was in a very irritable state. The tongue, throat, and gums were ulcerated—copious discharge of saliva—frequent inclination to make water—great pain in doing so—thirst—pulse small, and 100 in the minute. On inquiry it was found that a man with whom he had been drinking, two days previously, had given him a drachm of the powdered lytta in some ale! Fortunately the poor fellow vomited a good deal soon after taking the poison, and doubtless by that means threw off a part of the powder. He soon recovered by diluents, opium, camphor, and castor oil.

At the trial of the man who administered the lytta, there was, as usual, a clashing of medical evidence. One medical man stated that he had been in the habit of giving *ten grains* of the powdered lytta “as a single dose.” This was Dr. Dyce of Aberdeen. We would be glad to ask Dr. Dyce, on what occasions and for what complaints he administered such doses of the lytta? We would also venture to dissuade medical men against the practice of embarking on opposite sides of criminal accusations, to be made the tools of lawyers—to embarrass Juries—to give vent to their own crude and jarring *opinions*—and to bring disgrace on medical science.

DISSERTATIO PHYSIOLOGICA INAUGURALIS DE INHALATIONE PER CUTEM.

AUCTOR JOANNES DILL, A.M. C.M. COLL. GLASG. &c. &c.

8vo. EDINBURGI, 1825.

Dr. Dill, it appears, received his education, both philosophical and medical, in the University of Glasgow; and, during his residence at that ancient seat of learning, his diligence was unremitting, and his acquirements extraordinary. By particular reasons, however, he was induced to take his degree of M.D. at Edinburgh; and, on that occasion, he produced the Inaugural Dissertation which we shall now briefly notice. In this, he begins with stating that, “*quamvis nuperius de absorptione per cutem a multis dubitatum est, eandemque decidere quidam etiam aperte negarunt, nihilominus hæc doctrina inter viros antiquiores multum in honore habebatur.*” He then proceeds, with much ingenuity and in a very philosophical manner, to bring suc-

cessively under consideration, the principal hypotheses, experiments, facts, and inductions advanced, in all ages, by the asserters, as well as those by the opponents, of the doctrine of cutaneous absorption; and is led, in the course of this discussion, to observe, p. 22, “*quoniam, vero, qui disciplinæ de inhalatione cuticulari adversantur, nullum argumentum, sæpius vel iudiciâ majori, adducunt, quam quid pondus eorum qui in balneum descendunt, immersione nihil afficiatur; experimenta aliquot, quæ ipsi ad hanc litem dirimendam instituimus, proferemus.*” These experiments are six in number, and go far certainly to establish the original proposition: they appear to have been contrived with much judgement and executed with great exactness; and the detail of them is remarkable for its conciseness, precision and perspicuity. From two of them which, as well as all the rest, were often repeated, with little dissimilarity of result, Dr. Dill draws authority to say, “*absorptionem cutaneam haud parùm a conditionibus corporis universi diversis affici, et cum id jejunum et fatigatum quam cum plenum sit magis pollere, deducere par est.*” After cursorily remarking that the same observation had been made by Keil, De Garter, Rye, Hales, and Home, he asserts, p. 28, on the evidence of his own experiments and of facts adduced by Martineau, Good, and Rush, that the power of the cuticular absorbents varies at different periods in the same person. “*His igitur,*” he says, “*et multis similibus bene perspectis absorbentia, pariter ac aliud genus quodvis vasorum, vel paralysi solvi vel torpore sopire posse arbitror, ex quo fiat, ut eventus experimentorum de effectibus immersione in corporis pondus editis, factorum, quam maximè variare possint. Annotatu nihilominus dignum est, quod in omnibus experimentis supra memoratis, exitus esset unus, quâdam exparte saltem generalis. In iis, ubi nihil ponderis accessit, constitutionis jacturam inter immersionem quam antea minorem esse semper compertum est; unde, ergo, hæc differentia ortum ducit? Anne ab inhalatione per pulmones, inter periculum factum, adaucta; an ab exhalatione per cutem imminuta? Hanc,*” he replies, “*jacturæ mensuram diversam non ab inhalatione per pulmones adauctâ ortam, ut mihi videtur, constat.*” This is followed by an experiment on his own person, and a review of those published by Young, Currie, Abernethy, Seguin and Lavoisier on the question of pulmonary absorption. On the inquiry, whether cutaneous exhalation be diminished by the warm bath, he states that, according to his experience, the body acquires less weight in proportion to the degree of heat in the bath; and, after enumerating the statements of Santorius, Rye, Robinson, De Gorter, Keil, Cruikshanks, Linnings, Abernethy, Seguin, Lavoisier and Vielly, on the daily amount of perspiration, he subjoins, “*ab iis documentis quæ in arenam deducta sunt, me iudice, non omnino dubitari queat, quin multæ res humores circumfluentes, per cutem sub forma pariter solida ac fluida, ingredi possint.*” Finally, he observes that authors are not wanting, who believe in the capability of aëriform fluids, contagious particles and morbid poisons of various kinds, being communicable to the system through the instrumentality of cutaneous absorption, and modestly sums up the

discussion in these words: "*Hæc omnia ad hanc functionem neglectam stabiliendam et illustrandam conferunt, eamque statum pariter sanum et morbosum, plusquam multi concedere velint, efficere pro certo statuunt.*"

From the interesting nature of this inquiry, and the very able manner in which Dr. Dill has conducted it, in an Essay necessarily so limited, we should have felt exceedingly disposed to undertake a comprehensive exhibition of his principles and his philosophy: but, without affecting any thing like prophetic discernment, we think we can perceive internal evidence in his summary view of the question, of its being his intention not to leave it in its present almost inaccessible form. Under such impressions, therefore, we conclude this rapid sketch with assuring the zealous author of our respect for his talents and learning, and of the satisfaction we shall derive from soon meeting him in the same path of investigation, as a public competitor for the meed of literary and professional excellence.

RUPTURE OF THE LINEA ALBA.

In the May Number of the Repository a case of this kind, occurring during pregnancy, is related by Mr. Dendy.

Mr. D. makes some prefatory remarks on muscular contractility, ruptures of tendons, &c. which, though they may be very true, are certainly any thing but very new. But to the case.

Mrs. Parsons, ætat. 28, three days after a very severe labour, in which the vectis was employed, felt acute pain about the umbilicus and pubes with smarting in the vagina on the evacuation of urine; both this and the lochia were abundant. On examination there was found a large irregular tumour, between the umbilicus and cepheid cartilage, evidently a protrusion of the intestines. After taking food, this protrusion was increased, and the peristaltic motion very discernible in it. On reducing the hernia a considerable rent in the linea alba was felt. Ten leeches and a blister were applied near the part: and the pain was relieved. Next morning inflammatory symptoms re-appeared, the applications were repeated with frequent doses of hydr. subm. and pulv. antim. with good effect. It was now found that she had a slight prolapsus of the uterus. A broad flannel bandage was applied. In the evening there were nearly two ounces of pus discharged from the vagina. At the expiration of a month, the protrusion was gone—bandage still worn. The prolapsus uteri troublesome at times.

Mr. Dendy suggests the general use of a bandage around the abdomen during labour. It would probably do no harm, and it is a query whether it would do much good.

SUBACUTE METRITIS, WITH INFLAMMATION OF THE VEINS.—M. LOUIS.

Nothing is more easy, observes M. Louis, than to distinguish inflammation of the uterus, if we believe the symptomatology of systematic authors. They will even inform you how to recognize the particular portion of the organ that is phlogosed. But we may search in vain for the

facts on which their symptomatology is founded. It would, therefore, be very desirable, that those who have the charge of public institutions for females should communicate to the public the details of such cases as come under their observation, in order that the phenomena of female complaints might be more clearly connected with the pathological conditions on which they depend. We shall now proceed to the curious case under consideration.

An unmarried woman, 27 years of age, of apparently strong constitution, was admitted into LA CHARITÉ, on the 3d January, 1826, having been safely delivered of a child twenty days previously. The day after delivery she was seized with head-ache, cold chills, pains in the hypogastrium, and slight diarrhœa. These symptoms persisted, the cold chills coming on every day. There was no nausea for the first fortnight; but the thirst was urgent, anorexia complete, the lochia moderate. The urine was very red, and passed with difficulty. Nothing had been prescribed but diluent drinks and lavements. *4th January.* Her countenance was expressive of malaise and even of pain—complained of great debility—pain in the right thigh through its whole extent, for four days past, exasperated by pressure and motion—tongue dry and hard—mouth pasty—thirst intense—anorexia and nausea—abdomen soft, except in the right side, low down, where a roundish tumour could be felt, about three inches in diameter, little painful unless pressed. No pain on pressure in any other part of the abdomen—slight uterine discharge—pulse regular and 120 in the minute—animal temperature moderate. *Thirty leeches to the hypogastrium—fomentations—starvation.* Nothing particular on the succeeding day. *6th.* The restlessness and debility had increased—the eyes and the whole skin had become yellow—speech difficult—large hæmorrhoidal tumour at the anus—the volume of the uterus found to be larger than natural—the os tincæ soft, and very little painful to the touch—tumour in the right hypogastrium did not seem connected with the womb, as no motion was communicated to it, when the uterus was elevated. *7th,* The intensity of the yellow colour was increased—the countenance depressed—the hypogastrium very painful, as was the abdomen generally. *8th,* All the symptoms were ameliorated; but the abdomen seemed larger in size. This amendment was of very short duration, and the patient was in a state of stupor most part of the day. In this condition she lingered till the *12th,* when she expired.

Dissection. We shall pass over the examination of the head and chest, as not offering any thing worthy of notice, and come at once to the abdomen. There was nothing remarkable at first sight in this region. But on moving the intestines, a large quantity of pus was found in the pelvis, of a yellow colour and homogeneous appearance. All the parts with which the pus was in contact were covered with false membrane, beneath which the peritoneum was seen red and livid. The intestines in the pelvis were glued together. The uterus was larger than natural by one half, and, both internally and externally, of a rosy red-colour. The parenchymatous structure of the organ was softened—and where-

ever it was cut with the scalpel there were seen canals which threw out a quantity of pus of a very yellow colour. On tracing these canals, by means of a probe, they were found to lead to a double tumour beyond the uterus, one of which was an inch and a half in diameter. These tumours consisted of a conglomeration of canals, such as have been described, and filled with pus. From this mass was traced one large canal, nine inches in length, which opened into the cava inferior, below the emulgent veins. This canal, which was no other than the common trunk of the uterine and ovarian veins of the right side, was ten lines in circumference in the greater part of its length, and only half that at its entrance into the cava. It contained pus throughout its whole extent, and was lined with a fine false membrane. The uterine and ovarian veins were much dilated, and thickened in their parietes. No pus could be found in the cava itself. The mucous membrane of the bladder was in a state of inflammation, and covered with a false membrane of a very yellow colour.

We shall not follow M. Louis in his reflexions on this curious case, but leave it to the reflexions of our readers. The public situation in which the case happened, and the character of the reporter cannot admit of the least doubt of the authenticity of the facts above stated, which are certainly of a very interesting nature in a pathological point of view.—*Archives, Mars. 1826.*

MELANOSIS OF THE STOMACH.—ANDRÉAL, JUN.

A woman, 50 years of age, died at La CHARITÉ under M. Lermnier, in February, 1825. From the time of her reception, she had had general serous infiltrations of the cellular tissue, as well as ascites. The cause of this was sought for in vain. The action of the heart was regular—no appearance of disease in the liver, nor in any other organ. The history given by the patient was unsatisfactory. The dropsy had commenced gradually, first as anasarca, and then ascites. She never had pain in the abdomen. She was six weeks in the hospital, during which the dropsy did not diminish, and the debility increased. Diarrhœa obtained from time to time, and anorexia was complete. No vomiting, no epigastric pain—tongue natural. The patient sunk in the most gradual manner, without presenting any other phenomena.

Dissection. No disease of the heart, lungs, liver, or thoracic duct, which was carefully traced. On opening the stomach, a quantity of liquid as black as ink escaped, amounting to three glassfuls (small tumblers.) On washing out the stomach, its internal surface was found studded with circular or oval spots, of a jet black colour. Some of these were as large as a franc piece, the others much smaller, and indeed of all sizes down to that of a millet seed. Around the larger patches, the mucous membrane appeared inflamed and almost livid, these appearances diminishing in proportion as the distance from the spots was increased. Otherwise the internal surface of the stomach was pale. The seat of this melanosis was entirely confined to the mucous membrane. There was nothing remarkable in the other portions of the digestive canal.

M. Andral thinks it proper to publish this case, 1^{mo}. Because very few examples of such deposition of pigmentum nigrum in the form of circular patches are on record, as affecting the stomach. 2^{do}. Because this case is not without interest, in a medico-legal point of view, as presenting lesions which might be taken for those produced by certain poisons, as sulphuric acid. 3^{do}. Because this case proves, that a matter analogous to that of the black vomit of people affected with stomach cancer may, in some cases, be exhaled from this organ, without the existence of any cancerous affection, or even of gastritis. He thinks it probable, and in this we agree with him, that the disease in question was of a very recent formation, and that the black exhalation was in small quantity before death, and consequently did not excite vomiting.

The only other circumstance worthy of remark, in this case, was the absence of all organic disease to account for the dropsy. Our author could only attribute it therefore to a defect in the equilibrium between the exhalents and absorbents—to too great activity in the one, or too little in the other. In fact, we are often unable to attribute the cause of dropsy to any other than this unequilibrium between the two systems, whatever theories may be spun out on the occasion. In such a case as that now presented there is every reason to attribute the dropsical effusion to debility of the absorbents rather than to any excess of action in the exhalent vessels. The rage for generalising, at the present moment, makes dropsy always dependent on increased exhalation. Dr. Parry, of Bath, gave the greatest force and development to this doctrine, in his *Elements of Pathology*; but, with all deference to his commanding genius and unbounded experience, we cannot help considering him as having carried the doctrine too far. *Errare est humanum!*—*Archives, Mars*.

WOUNDED NERVES.*

Affections of the nerves have, as Mr. G. Bell truly observes, been always interesting and puzzling too, both to surgeons and physicians, from their anomalous character, obstinate nature, and sometimes fatal consequences. The anatomical labours, however, of Wrisberg, Monroe, and Reil, and the physiological researches of Bichat, Home, Scarpa, and last, not least, Charles Bell, have done much, very much, to dispel the darkness which hung over the nervous system, and light the way for clearer views and more certain practice. The errors of our predecessors, nay, of our own times, have been many, but we may now hope for better things. Mr. G. Bell proceeds to state a few cases of injured nerves, and their treatment, with the highly laudable desire of eliciting information from his brother practitioners. But, to the point.

July 7th, 1802, Mr. B. was requested by Dr. James Hamilton to see, with him, a young woman, who had been bled, ten days before, in the median cephalic of the right arm. On examination—the fore-arm was bent to an acute angle with the arm, fingers clenched, and the attempt at

* Mr. George Bell. *Edinburgh Journal of Medical Science*, No. 11.—April.

extension of either the arm or fingers gave excruciating pain—no swelling ; lancet-wound healed, but pressure on it exasperates the pain ; this was, at times, excessive, shooting down to the tips of the fingers, and upwards to the axilla, clavicle, pectoral muscle, and even short ribs, accompanied by startings, tremors, subsultus tendinum, &c. Pulse 110 ; considerable fever. As every remedy he could think of had been tried in vain by Dr. H. and as locked-jaw was apprehended, it was determined to excise part of the vein which had been opened, and so make sure of the nerve with it. This was preferred to mere division of the nerve, as there was little chance of hitting on the exact spot of the injury, and the operation would be done at random ; accordingly, with the concurrence of Drs. Barclay and Hamilton, an incision was made through the skin, from an inch and a half above, to the same distance below the lancet-wound. The vein being exposed and separated from its connexions, “two ligatures were applied at an inch and a half from each other, and equi-distant from the wound in the vein,” the intermediate portion of which was then removed—the tying of the superior ligature was much more painful than that of the lower. The operation was followed by immediate relief to the symptoms ; indeed, all she complained of now was the mere uneasiness of the wound : the sides of this were brought together by adhesive plaster, and a pledget, compress and bandage applied. She was then placed in bed, and the arm so laid on a pillow that the flexor muscles were quite relaxed—an opiate was given.

July 8th. She is tolerably easy, and has had a good night, though the fingers were again contracted, most likely from the irritation of the ligatures. She can permit the fingers to be moved, however, in every direction, without increase of pain. 9th, Has passed a restless night—bowels costive—uneasiness in the fingers and fore-arm—emollient poultice to the wound—a dose of pulv. jalap. comp. which acted freely—from this time she continued to improve. On the 12th, the ligatures were removed ; and, on the 1st August, she was well, having merely a little numbness and stiffness in the arm, the necessary consequence of the operation.

Remarks. The good effects of excision, in this instance, are evident enough ; the patient being, in all probability, saved either from tetanus or permanent contraction of the elbow-joint. To shew that an operation may be serviceable, even a considerable time after the infliction of the injury, there is a case given from Volchamer which we shall just glance at.

A young woman, æt. 16, wounded the radial artery and nerve with a knife ; the wound healed, leaving only a little pustule. Some months afterwards, being affected with fainting fits, she applied to Volchamer, who, taking the pustule for an incipient aneurism, had caustic applied freely, and the wound kept open for *six months*. The fainting fits did not return.

This instance is rather equivocal ; for it is hard to say that the cautery cured the fits, seeing that it was six months about it. But let that pass.

Another case is given by Dr. Milligan, which is rather interesting.

A lady, æt. 22, after being bled in the median basilic of the left arm, complained of pain in the wound, and on going to bed, shortly afterwards, felt great uneasiness in the left shoulder. At three the next morning, she was seized with spasms of the nerves and extensors of the hands; anxiety; increasing pain at the scrobiculus cordis, and even opisthotonos; the muscles of the upper and lower extremities, and the pectorals acting most violently. In about six minutes the spasms went off, but soon returned, and continued to recur for a long period. She took 580 drops of laudanum in the first 24 hours, and in the course of two months not less than 44,000.

Another instance of nervous injury is related by Mr. Bell, where removal of the part was practised.

The lady of a medical man, æt. 26, cut the artery, and probably the nerve, of the thumb, on its radial side, half way between the first and second joints. The wound healed, but she continued to suffer from pain, startings, twitchings of the flexors, contraction of the thumb, and great general irritability. Opiates; every plan was tried without success. On two occasions, incisions were made down to the bone in the neighbourhood of the wound, with but temporary relief. June, 1805, two years after the accident, she consulted Mr. B. Her health had suffered, and the pain and irritability of mind were so great that derangement was to be feared.

Dr. Monro, *secundus*, and Mr. Russel were called in—mercury was tried—it did harm. After the mercurial influence had subsided the thumb was removed at the second joint. In six weeks the lady was well.

Mr. Bell justly observes, that such cases as these will not be confounded with those of inflammation of the veins, or of the cellular tissue as described by Dr. Duncan. With regard to excision, if the case presents early, so much the better, but even after the lapse of months, there is a chance, and *cæteris paribus*, a very fair one, of success. Mr. B. draws a very judicious distinction between the operation here and in tic douloureux, for in the latter affection, we know not whether the disease be in the *root* or in the *extremity* of the nerve, consequently we cut at hazard.

VOMITING OF FAT AND BLOOD.—PASQUALI.

In the *Annali Univers.* for January, there is related the case of a man, aged 75, who had always enjoyed good health with the exception of an attack of jaundice. He was in the habit of fasting sometimes for a whole day or two, and then eating, in excess, the most indigestible substances. This went on for many years, without any apparent ill consequences; but the day of reckoning at length arrived. For two years past he had been seized with periodical vomitings, every week or a fortnight, attended with complete loss of appetite for some days; when the stomach would again become restored. One evening lately he was seized with a more severe attack than usual, after great imprudence in diet, and vomited most abundantly. When the paroxysm was apparently over,

a new phenomenon took place, and Dr. Pasquali was called in. The matters thrown up were no longer the ordinary contents and secretions of the stomach, but a mixture of pure blood and a kind of thick oil or melted fat. This process went on to a prodigious extent, and our author calculated that the patient threw up, in the course of 24 hours, the enormous quantity of thirty pounds or pints of this mixture. The man was reduced to the brink of the grave, and life was scarcely perceptible, when the orgasm ceased. And now a surprising change was perceived in the patient's body. He had been rather embonpoint before the attack; but his skin was now hanging in folds, and the whole of the adipose substance seemed to have disappeared from the belly and every part of the body where it had previously abounded. The orgasm over, the poor man was nourished every hour with light liquid food, and life was thus preserved. In twenty days he was restored to health, but still with an immense loss of adipose substance.

Incredible as this case may appear, we believe it to be a fact. We have seen the stomach and the absorbents play such parts in the animal economy as would surprise and startle those who had not witnessed such feats. The above case also illustrates another fact—namely, that however long the stomach may bear with patience the insult which we daily offer that important organ, yet the day of retribution must come at last; and is generally the more terrible in proportion as it has been longer delayed. A hurricane, as it were, takes place in the constitution, and purges it of its morbid causes, or ill-gotten accumulations. It is thus that we see people laid up annually with certain constitutional diseases, as gout, indigestion, &c. which reduce the human fabric to a certain point, when the phenomena gradually cease, and the patient is anxious to make up the reduction in flesh by every kind of nutriment which himself or the cook can devise. He rises again to a certain point in the scale of (apparent) health, and thinks himself most fortunate in thus gaining such an ascendancy. But at this moment a cog flies from the machinery, and a morbid spring, which had long been gradually pressed down, is suddenly set free, a recoil in the constitution takes place, the disease is developed, and runs its course as before. It is, perhaps, not very material whether we call this periodical accession a salutary process or the natural consequence or effect of a train of morbid causes accumulating in the constitution. In either way we view it, the event is inevitable. Or, if evitable, the escape is worse than the attack. Every person who has experienced these periodical storms of the constitution will acknowledge that the subsequent amelioration of function in the stomach and other organs of the body, as well as of the mind, is quite extraordinary—sufficient indeed to raise and support the idea of the preceding disease being a restorative or healthy process. But, on this subject, we shall soon have a fuller opportunity to enlarge.

CASE OF PARTIAL FRACTURE.*

March 13th, 1826. J. Douglas, ætat. 2 years and six weeks, of a ricketty, unhealthy habit, was ill about a year ago, and treated for marasmus, after the plan of Dr. Hamilton, sen. with good effect.

About 2 months ago, the right thigh became much swollen, and the motions of the hip and knee-joint affected; near the middle of the femur an obscure sense of flexibility was perceived, not having altogether the character of fracture. With fomentations, stimulating embrocations, and, occasionally, cathartics, the tumour subsided to a certain extent, but at the end of three weeks the child died suddenly.

Dissection. The four great cavities tolerably sound—mesenteric glands somewhat enlarged—mucous coat of the intestines natural.

The right femur was very carefully dissected out—it had the anterior ricketty curvature, and near the middle of the fore part of the bone, was a small carious spot, about the size of a split-pea; the periosteum was elsewhere entire. Upon making a longitudinal section of the bone, a fissure was found extending from the carious spot, obliquely downwards, through the bone, for more than two-thirds of its diameter. The bone contained very little earthy matter (indeed this was the case with almost all the bones of the extremities,) its internal periosteum was very vascular, and the cells were filled with what looked much like coagulable lymph. The circular and longitudinal lamellæ, so peculiar to ricketty bones, were found very distinct here.

Mr. B. Bell makes some observations, in which he imagines this to be a spontaneous fracture, arising, not from any accident; as the patient had been for some time before the affection of the thigh appeared, confined to bed, but from “the carious spot,” having exercised “some influence in modifying the constitution of the bone,” and the local irritation therefrom having “had the effect of inducing irregular, and, perhaps, spastic contractions of the flexor muscles, so violent as to occasion partial fracture.”

We are rather inclined to doubt whether this was a case of fracture, and for these reasons: The bones were, as Mr. B. observes, nearly all flexible—there was no apparent accident; nor do we think that spasm of the muscles would break the bone, inflamed as it evidently was, without producing such pain as must have made it known—in fine, the substance found in the cancelli, “resembling organizable lymph,” renders it more probable that the fissure was the result of scrophulous action, inflammation, and absorption.

Does not scrophulous action render the vertebra perforated and spongy?

RUPTURE OF ANEURISMS IN THE BRAIN.—M. SERRES.

M. Serres has divided apoplexies, accompanied by extravasation, into

* Edinburgh Journal of Medical Science, No. 11. April, 1826. Mr. Benjamin Bell.

two kinds, hemato-meningeal, and hemato-encephalic. The former may be the consequence of rupture of a vein, an artery, or an aneurismal tumour. The *latter* may have its seat in the cerebellum, also, and then our author denominates it hemato-cerebellic, and so on. These two kinds of extravasation, he observes, differ essentially according to their seats; that is, according as they are in the meninges or the medullary structure. They differ, he avers, in their symptoms. In the former, or hemato-meningeal extravasation, there is no paralysis of the voluntary muscles. In the hemato-encephalic species, there is always more or less paralysis. In both cases, the blood effused is in a clot; but in the latter kind (hemato-encephalic) it is lodged in an excavation, more or less profound, in the encephalon. In the former (hemato-meningeal) the blood is extended over the surface of the brain, and in the interior of the ventricles, between the tunica arachnoidea and the pia mater, penetrating wherever these membranes penetrate. These last cases are rare, and those cases dependent on rupture of an aneurismal artery are rarer still. The following cases are, therefore, interesting, and are deserving of record.

Case 1. (Hemato-meningeal.) G. Espert, 59 years of age, of very robust constitution, had long been subject to a sense of weight in the head, augmented by any violent exercise or excess in eating or drinking. On the 4th February, he became affected with pneumonia, for which he was received into LA PITIÉ, and was cured by bleeding and proper remedies. On the 26th, when he was ready to quit the hospital, he received the news of a domestic affliction, which caused a violent mental emotion, and fainting that continued for some time. M. Serres found him in the following condition the next day:—face flushed—jugulars turgid—breathing high—pulse hard, full, and quick—stupid appearance.—A copious bleeding relieved these symptoms. 28th, Complete apoplexy—the automatic movements, when excited, were very feeble—redness and tumefaction of the face. Died suddenly this day.

Dissection. Before a class of students M. Serres prognosticated that the disease was meningeal apoplexy. On removing the skull, a large quantity of blood was found at the basis cranii, coagulated into laminated clots. On removing the brain, it was discovered that there was an aneurism of the basilar artery, an inch in diameter, and the pouch equal to a pullet's egg. On one side, there was an opening, and through this full a pound of blood had escaped, following the meninges, and penetrating into the ventricles which were completely distended.

Case 2. This was a female, 59 years of age, who fell down senseless, on the 3d January, 1826, and was brought to La Pitié the next day, where the house-surgeon applied leeches to the head. 5th, M. Serres found the patient in a state of stupor—face flushed—pulse small and not quick. There were doubts whether any paralysis existed, and, therefore, our author hesitated to give his prognosis as to the seat of the apoplectic cause.

Dissection. When the skull-cap was removed, the meningeal veins were observed to be exceedingly turgid, and a sanguineous extravasation was spread, like a sheet, over the hemispheres, dipping down into the anfractuositities. The blood was situated between the pia mater and tunica arachnoidea. By carefully removing the brain and examining the arteries, there was found an aneurism of one of the vessels forming the circulus Willisii, which had burst and produced this meningeal apoplexy. The blood had filled the ventricles, and was prodigious in quantity.

The two cases, above described, are curious specimens of pathology, since rupture of an aneurismal artery is seldom likely to produce this kind of extravasation between the meninges, appearing like a sheet of blood, and puzzling (as we have more than once seen) some good anatomists in this country.—*Archives, Mars, 1826.*

SEA-SICKNESS.*

In No. 2 of our *junior* co-temporary of the North are some observations on sea-sickness, by Dr. Maxwell, which we shall notice here.

Dr. M. observes, what is well known, that this unpleasant affection is always preceded by depressed energy of the system, marked by blanching of the face and hands—lightness of head, &c. He then proceeds to remark, that those most subject to sea-sickness are generally people of strong and healthy constitutions, whilst persons of irritable habits, take phthisical patients for instance, are far less liable to be attacked. With regard to the *modus operandi* of the rolling of the vessel, Dr. M. considers it to be the same as that of “any other emetic,” which to be sure is throwing no great light on the matter. Dr. Johnson has ascribed sea-sickness, in a great measure, to the impression produced on the optic nerve, and transmitted to the brain, by the continued motion of the vessel, sails, shrouds, &c. and remarked, that by keeping the eyes closed, this disagreeable nausea is very frequently prevented. This view of the subject was well illustrated by Mr. Bell, in his late lectures at the College of Surgeons. A country gentleman, said he, just arrived in town, will be walking along the Strand, where “the great tide of human existence” sets in. Before, however, he has reached Temple-Bar, the optic nerve, fatigued by the dizzying impression made on it by the continual passing and repassing of objects, will transmit this impression to the brain in such a degree, that the gentleman will reel and actually fall in a state of syncope. So it is in looking from great heights, or fixing the eyes steadily on an object for a length of time; the exertion of the nerve of vision, and the consequent lassitude are communicated to the brain, producing sickness or faintness, as the case may be. As for the remedies, Dr. M. recommends stimulants, such as brandy—walking about, and the horizontal posture—the indication is, to counteract the collapse which is the fore-runner of the attack.

* Edinburgh Journal of Medical Science, No. II.

REMARKABLE EFFECT OF ACETATE OF MORPHINE APPLIED
EXTERNALLY.

A young woman, 18 years of age, was received into LA PITIÉ, in February, 1826, presenting the following phenomena :—great extenuation—skin hot—pulse small and frequent—tongue pale and dry at the sides—acute pain at the epigastrium and over the whole abdomen, when pressed—cardialgia—nausea—vomiting of every thing, solid or liquid—abdomen tense and swelled—constipation—great sense of debility—painful sensations between the scapulæ—complete loss of voice—urine red and scanty—inquietude—insomnolency.

This young woman had borne a child the year before at Brussels, which was followed by peritonitis that required the most active system of depletion. She had had more than 400 leeches applied to the abdomen and head—and since that period she had never regained her health. Two months previously to the present time, she had had an accession of what was called gastro-enteritis, for which she was treated in one of the MAISONS DE SANTÉ of Paris. In LA PITIÉ M. Serres considered the disease as gastro-entero-peritonitis of the chronic kind, and that it would require some months of the most rigid starvation to remove it. A large cataplasm was ordered to the abdomen, and gum-water to drink. This plan was continued six days, without any benefit. Sugar was the only thing she could keep on her stomach. 15th February, A blister was applied to the epigastrium; but this and various other means had no effect in stopping the vomiting. At this time, M. Lambert, a gentleman who has made many experiments on the external application of medicinal substances, proposed the trial of acetate of morphine to the blistered surface. Half a grain was accordingly applied, and, in a few minutes, the vomiting ceased, as if by magic, and the patient passed a better night than she had done for a long time before. The next day the same process was repeated, and the patient slept almost the whole of the day. During the two succeeding days the application failed in preventing the vomiting of substances taken into the stomach, but still maintained its effects of producing sleep. The quantity was gradually augmented to a grain and half. One day it was accidentally omitted, and the patient was thrown into great agitation, and had no sleep that night. But not to detain our readers, the acetate of morphine was still farther increased, and with such good effects that aliment was retained on the stomach, and, when the account closed, the young woman was gaining strength and in a fair way for recovery.

The medical men of the establishment are doubtful whether they had an actual chronic inflammation of the stomach to deal with; and truly, so are we. It is highly probable that this was one of those gastralgic affections which lead men, especially in France, so much astray, under the false colours of gastritis. Be this as it may, the case may suggest the trial of the medicine above-mentioned, in cases of a similar description. It is proper to observe, that the blistered surface was artificially kept open during the time the morphine was used.—*M. Serres, Archives, Mars.*

FRENCH CRITICISM ; OR, NATIONAL FEELING.*

In the year 1750, Mr. Samuel Sharp published his "Critical Enquiry into the present State of Surgery," a work which obtained for the author great commendation and extension of fame, while it was of considerable benefit to the public at large. It is professedly on the model of our countryman, and for the same avowed purpose, that M. Richerand has come forward with his present work. But the fate of this performance promises to be very different from that of Mr. Sharp's Enquiry. M. Richerand seems to have given grievous offence to his countrymen, and to have so wounded their national pride that, had he lived in the good old times of the Revolution, he would have probably gone to the CONCIERGERIE, if not to the GUILLOTINE. Our French brethren seem to be peculiarly irritable when any credit is given to foreigners, which one would suppose they considered as a detraction from their own merits. They cannot relish the idea that improvement in either medicine or surgery should originate or become perfected beyond the limits of their own dear country. Doubtless there is no land without its prejudices and partialities. England cannot boast of immunity from those weaknesses ; but we think any English surgeon might write a book and extol foreigners to the neglect of his own com-patriots, without drawing such a hornet's nest about his ears as M. Richerand has done. He might laud the Otaheitean mode of venesection by means of an arrow, to that practised in England :—He might even prefer the Barbary operation of amputation by a sharp axe, the bleeding stump being plunged into a Bamboo case filled with bituminous substances to save tenacula and future dressings, to the most improved methods by Liston and Syme, without drawing down the vengeance of a host of critics on his head. But this might not be in France. It would be a crime against national pride, and would be punished by a hundred brochures—nay, the author would certainly be *denationalised* !

Under the mask of paying respect to our countryman, the French critics have indirectly cast severe reflections on M. Richerand. Sharp, say they, was *correct and faithful* in his exposé—moderation and justice presided over his criticisms—and rigid impartiality was the soul of his judgments. Sharp sought not to tarnish the reputation of his masters—envy did not lead him to defame his cotemporaries—nor ravish from his com-patriots the honour of discoveries, in order to heap them on foreigners. Sharp wrote without anger or hatred—he had nothing in view but the interests of science—he put individuals out of sight when he looked at error, or sought for truth. Finally, he possessed the rare talent of compressing a great deal of matter in few words. Of course it is meant that M. Richerand's portrait is the reverse of this.

The first tangible charge against our unfortunate author is blindness to the merits of Bichat. The latter simplified and perfected the instru-

* Histoire des Progrès recens de la Chirurgie ; par M. Le Chevalier Richerand, M. D. &c. &c. 8vo. 1826.

ments employed in trephining the cranium. Richerand has passed over these improvements in silence. Next it is said that Desault's method of operating for fistula lachrymalis was practised in France till the time of Dupuytren, and was even recommended by Richerand himself in the earlier editions of his Chirurgical Nosography. Dupuytren, however, conceived the idea of re-establishing the nasal canal by the introduction of a golden canula into the tract of the duct, by which an effectual cure was quickly performed. Reflecting on the general want of success attending this method as originally invented by Foubert, Dupuytren found that it was owing to the smallness and the shape of the canula hitherto employed. He enlarged the size, and so modified the shape that the instrument could be retained a sufficient length of time to effect a cure in as many days as it formerly required months. M. Richerand now praises the operation by the canula, but says nothing of Dupuytren who brought it to perfection.

Riolan, say the critics, advised, two centuries ago, the perforation of the tympanum, in cases of congenital deafness—and Cheselden observed, that this operation might be resorted to in certain diseases of that membrane. Still later, Julien Bousson recommended the operation where the interior of the ear was filled with pus. M. Richerand is accused of attributing the invention of this operation to our celebrated countryman Sir Astley Cooper. Now as it does not appear that the operation was ever performed before Sir Astley performed it, we really see no heinous crime in giving him the credit of the discovery. No man in this country will accuse Sir Astley of hunting through old musty volumes for *hints*, when the *book of nature* is so widely spread before him, and whilst his intellects remain to explore that fertile source of knowledge.

It appears that M. Itard has made an alteration in the *shape* of the instrument for perforating the membrana tympani, and the French critics are in a rage that M. Richerand should not have taken away all credit from Sir Astley, and wreathed the laurel round the brows of their countryman—M. Itard! *risum teneatis?*

The operation of staphyloraphia, as practised by Roux, has been claimed by Gräefe, of Berlin. M. Richerand is blamed, of course, for not deciding in favour of his countryman. It appears rather awkward indeed for M. Richerand that, last year, in the public section of surgery, he gave credit to M. Roux for the invention of the operation in question; but it is highly probable that he was ignorant of Gräefe's priority, for German literature is confessedly little known in the French medical world.

On the subject of lithotomy M. Richerand is accused of not doing justice to Dupuytren; and on that of aneurism, the honour of tying the artery above the tumour, without opening the sac, is rifled from John Hunter by the French critics, and given to M. Anel, who, 75 years previously, *proposed* this operation! M. Richerand is execrated, of course, for placing Hunter as the founder of this operation—"car Hunter n'a fait que modifier *legerement* le methode inventé par Anel." What we said of Sir Astley Cooper, respecting the operation of puncturing the

membrana tympani, will doubly apply to John Hunter. Little did he know of Anel's proposal, we may be certain.

Spare ligatures have long been laid aside in this country, in the tying of arteries, though it is well known that, till very lately, if not till the present moment, not only were spare ligatures left around arteries in France, but the most clumsy interventions were used to keep the thread from cutting the coats of the vessel. Yet M. Richerand is anathematised for saying that the British surgeons are entitled to the praise of having simplified and rendered more safe the operation of tying arteries for aneurism!

That M. Richerand has written some passages under the influence of personal hostility to certain of his cotemporaries, especially M. Dupuytren, is not improbable; and that he has been guilty of inconsistency on several occasions, we are ready to admit; but that his liberality to the surgeons of other countries, particularly of England, should deserve such abuse and execration as are poured upon him from all quarters, we cannot believe. The French are acknowledged to be a vain nation, and the medical portion is not exempt from the general ruling passion. Their self-love is wounded, and they have carried their indignation to the highest pitch of extravagance, by which, in exposing the passion under which Richerand wrote, they have very conspicuously portrayed their own. Nothing can justify the hideous character which has been drawn both of Richerand and his book: "Un livre infidèle parce que des faits importants y sont omis ou présentés sous un faux jour; un livre partial, puisqu'il renferme d'injustes critiques et des éloges non mérités; un livre dans lequel les intérêts sacrés de la vérité sont incessamment sacrifiés à des inimitiés personnelles; un livre enfin, dans lequel l'auteur déguise avec un art infini sous le semblant du vrai les faussetés les plus palpables." Such a passage against such a man as Richerand does not honour to the French press.

We have glanced over the work so severely criticised, and find it to contain a fair exposé of the actual state and recent progress of surgical knowledge—not vouching, however, for the strict impartiality of the author as to the origin of certain improvements. Partiality or impartiality, in this respect, only concerns individuals—to the public it is of comparatively little consequence who are the inventors of improvements, provided they be actually such. A regular review of M. Richerand's work would be unnecessary; but we shall have occasion to notice some parts of it while treating of surgical subjects in different parts of the Journal.

CASE OF BRONCHITIS FOLLOWED BY PNEUMONIA AND PERICARDITIS.*
October, 15th, 1825, Bryan Flinn, ætat. 35, labours under acute bronchitis.

Auscultic indications. *Sonorous and sibilant rattles*, generally audible throughout the thorax; in some spots verging to the *mucous*

* Mr. Jowett, New Ed. Journal.

kind. *Respiration prolonged* and blowing, at times inaudible in spaces of various extent: it reappears in general after a fit of coughing. *Percussion.* Sound good. He expectorates in the day about a pint of clear, viscid, and rather frothy mucus, and is too weak to bear sanguineous depletion; legs and feet œdematous. Blisters to the sternum, and $\frac{1}{4}$ of a grain of tartarized antimony every four hours. Spare diet and rest.

Under this treatment he was gradually recovering, but November 16th, he was seized with dull pain in the left side of the chest, and other symptoms of pneumonia; legs again œdematous. 22d. Pain gone: the dyspnœa and cough oblige him to sit up constantly: sputa opake and gelatinous, the froth thick and in quantity. *Percussion.* The sound good in the right back, but dead in the left. *Stethoscopy.* No respiration audible at the bottom of the left side of the chest posteriorly, but only a weak rattle on inspiring forcibly. More or less bronchial respiration, with resonance of voice nearly resembling egophony, between the left scapula and the spine, around and over the inferior half of the scapula, and along the fifth rib towards the sternum. Respiration vesicular, but feeble, posteriorly, at the summit of the lung, anteriorly, down to the third rib; below this inaudible. Tartarized antimony to be continued. These symptoms were relieved, and he appeared to improve till November 26th, when he was seized with a great sense of constriction about the heart, forcing him to sit up constantly. *Stethoscopy.* The heart's action natural as to rhythm, but it appeared to be *at a distance* from the side. Leeches and a blister to the præcordial region. 28th, Better. 29th, He can lie lower in bed, but still that intolerable sensation about the heart: pulse weak and rather irregular. Besides the former indications by the stethoscope, a *bubbling noise* was distinctly heard at intervals; it seemed to accompany and be caused by the motions of the heart. At night it was so distinct as to be heard by a patient in the next bed. The next morning it was gone. He was free from pain from this time till December 3d, when the feelings about the heart returned. *Stethoscopy.* The heart was felt beating in a confused manner in a considerable præcordial space. Pulmonary indications nearly the same. December, 10th, Œdema appeared again, and advanced till the 20th, when he died.

Dissection, 28 hours after death. Present, Dr. Marshall Hall, Dr. Godfrey Howitt, Mr. Oldknow, Mr. Cursham, to whom, prior to opening the body, Mr. Jowett read the following note.

“21st December.—On looking over my notes of Flinn's case, for the purpose of forming an opinion of the morbid appearances, before examining the body, it appears, that the inferior lobe of the left lung is generally in a state of hepatization (probably of the grey kind): whether there be (any) pleuritic effusion, and to what extent I cannot say; I think it cannot be abundant. Although not quite certain, yet in this case, I do expect to find pericarditis, of course accompanied with effusion into the pericardium.”

On opening the thorax, the pericardium was found very large, extending as high as the second left rib, and more than usual laterally. It contained some air, and two pints and a half of thin opake greenish

yellow pus, mixed with flakes of coagulable lymph, by a thick recent layer of which the internal surface of the pericardium and external surface of the heart were coated. The heart itself of moderate size, its parietes thin, pale and flabby. It adhered posteriorly to the pericardium, and was pushed upwards and backwards.

The lungs were firmly united to the walls of the thorax by old adhesions, which were, for the most part, infiltrated with transparent, and nearly gelatinous fluid—no pleuritic effusion. The superior lobe of the left lung not so crepitous as natural; when incised, much serous fluid, with air, oozed out. This was the case with the right lung. The inferior lobe of the left lung was dense, fleshy, and of tender consistence: it was in a state intermediate between the red and grey hepatization, more approaching the latter. The lower part of the trachea, and the bronchial tubes contained much thick, frothy, mucus. The mucous membrane reddened throughout both lungs, not so in the inferior lobe of the left one.

Abdomen. Some old adhesions between the omentum and peritoneum; also between the liver, which was large and gorged with blood, and the diaphragm. Some serous effusion into the abdominal cavity.

Head, not examined.—*Mr. Jowett, Ed. Journ. Med. Science, No. 2.*

We perfectly agree with the able and indefatigable author of the above case, that the utility of auscultation and percussion in the diagnosis of diseases of the lungs, is strongly illustrated by it. Our readers will find a still more remarkable and interesting case by the same author in another part of this Number.

POPLITEAL ANEURISM.*

On the 1st July, 1825, James Ferguson, a sailor, observed pain and swelling in the left ham; in ten days time the pain abated; the tumour remained and pulsated strongly. August 23d, he was admitted into the Royal Infirmary of Edinburgh. His symptoms were—the left leg semi-bent; motions of the knee-joint impaired; at times, shooting pains in the leg with œdema and tingling in the foot; in the ham was an elastic circumscribed tumour, projecting beyond the hamstrings and thrilling to the touch—the integuments above it tense, but not red or painful: the femoral artery pulsated strongly, the anterior and posterior tibial arteries indistinctly. Some of the lymphatic glands of the neck were enlarged, but his general health was good. He had not overstrained himself.

August 26th, the artery was tied in the usual manner, when the tension and pulsation of the tumour immediately ceased—he bore the operation well. At one o'clock, an hour after the operation, there was much pain in the wound and foot, which was a little colder than the other—8 o'clock, much the same, a bottle of hot water to the foot—anodyne. Aug. 27th, 7 A. M. he had slept well—there was no pain, merely a little numbness and tingling in the foot and toes; no pulsation

* Mr. Allan. Edinburgh Journ. of Med. Science, No. II. for April, 1826.
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in the tumour, nor in the anterior or posterior tibial arteries; heat of the sound limb 94° , that of the other $88\frac{1}{2}$. At noon the pulse was 96, full and strong; pain in the loins; no dejection; tongue clean—a cathartic enema was given immediately. In the evening he complained of pain in the leg. 28th, Nearly as before—an ounce of castor oil was given. 29th, The medicine had operated thrice—the wound was dressed—the edges had adhered—no tumefaction or inflammation. In the evening the pulse rose to 106, full and bounding; surface hot; V. S. ad $\frac{3}{4}$ xiv. —Two aloetic pills to be taken in the morning. 30th, Better—pulse 104 and softer—a cathartic enema in the evening—after this there was little febrile action; the aneurismal limb was generally about two degrees colder than the sound one. September 4th, Costiveness; pain and starting in the leg; pulse 160 and sharp; wound surrounded with a blush of inflammation; adhesion of the edges perfect; inguinal glands enlarged and painful—saturnine lotion to the groin and wound: V. S. ad $\frac{3}{4}$ xiv, and two drachms of pulv. jalap. comp. to be taken immediately. September, The blood taken was sizzly; better in all respects; the aneurismal tumour much reduced in size. Cold lotion and cathartic powder to be continued, and a saline mixture with antimonial wine to be taken occasionally. 6th, Erysipelas appeared on the thigh and haunch; infusion of senna with a little calomel at times was given, and it disappeared on the 13th. Severe pain now seized upon the knee, attended with some swelling and burning heat stretching down the calves of the legs. On the 18th, the ligature came away with little discharge—the wound cicatrized. From this to the 27th the pain, swelling, &c. of the knee continued; pulse 120; great febrile action and, at times, even delirium. He left the hospital on the 20th, for his father's house, the aneurismal tumour being about the size of a duck's egg. The treatment consisted of fomentations and poultices to the part, with the exhibition of diaphoretics and laxatives. September 27th, Distinct fluctuation round the joint; two incisions were made, one a little above the patella, whence issued six or seven ounces of bloody matter, the other two inches below the knee on the inner side, from which about an ounce of pus was discharged. Oiled lint was introduced into the openings, and poultices applied. For the next two days the discharge was profuse, and the irritative fever excessive. 30th, The limb was removed three inches below where the ligature was applied—eight vessels were secured—the femoral artery was observed to be open; it was tied, but, on taking off the tourniquet no pulsation could be perceived at the ligature—the stump was dressed in the usual way—the man went on well for three days; but then diarrhoea and night-sweats came on, and he sunk eight days after the operation.

Dissection. The popliteal vein lying over the tumour was obliterated, and filled with a clot of blood just before it came in contact with the lower part of the tumour—with regard to the aneurism itself, there was nothing remarkable—no abrasion of the internal coat of the artery could be perceived—there were three abscesses around the joint, communicating with one another, with the aneurismal sac, and with the joint, so

that, in fact, the knee-joint was almost surrounded with pus which was also contained in its cavity—On examining the artery in the stump, it was found that the ligature had been applied three inches below the origin of the profunda; at this spot the vessel looked as if it had been divided transversely by a knife; the sheath of the artery, and cellular membrane around it were much thickened to the extent of an inch and a half above the ligature, and two inches below it; the cavity of the artery, from an inch above the ligature to the face of the stump was much contracted and filled with a clot.

Remarks. The ligature did not, it appears, come away till the 24th day—this was owing, in a great measure, to the state of the constitution, but partly also to the thread not having been drawn very tight. With regard to the patient's death, it is clear that it "was not to be imputed to the suppuration of the sac," for the operation, as far as regarded the aneurism was successful, "but to distinct abscesses, which, by inducing ulcerative absorption had formed a communication both with the joint and the aneurismal sac."

SOME CASES OF CHOLERA MORBUS.*

About the middle of May, 1825, a convict was sent from a village, where cholera had appeared, to Chanda, eighty miles to the westward. Two hours after his arrival at this place, he was attacked with the epidemic, and in two hours more Mr. Montgomery saw him. His symptoms were—vomiting and purging of a watery fluid; severe spasms of the abdominal and gastrocnemii muscles; thirst; coldness of the extremities: clammy perspirations: anxious countenance: jactitation: great prostration of strength. Laudanum, oil of mint, brandy, the usual treatment in that part of India were employed, but in twelve hours from the first attack, he was dead. He was carried out for burial by four other convicts: three of them were attacked on that and the next day with similar symptoms, and two died in eighteen hours. A native who gave them their medicines, was seized with cholera on his return from the jail, and nearly perished. The disease now spread among the convicts, (those only who had been in communication with the persons who laboured under it suffered) and six died in as many days.

Further; four police-men escorting treasure from a distant village to Chanda passed a night at Mhool, where the disease was then raging—the next day two of them were taken ill on the road and died in six hours. The other two, a few hours after their arrival in Chanda, were seized with cholera and died likewise within six hours.

Finding his practice unsuccessful, indeed inert, Mr. M. bethought himself of the following—a pill of two grains of opium, ten of calomel, and three of powdered capsicum, together with a draught of two ounces of aqua vitæ, fifty drops of laudanum and ten of oil of peppermint was

* Mr. Montgomery, Repository for May, 1826.

given as soon as possible after the appearance of the disease. If the vomiting and purging continued, the draught was repeated every half hour and the pill every fourth hour : if this was rejected it was repeated till it was retained. The warm bath, blisters to the epigastric region and frictions with hot arrack, to the trunk and extremities, were also used—bleeding was not employed, our author's practice being solely among the natives who will not bear depletion. Under this treatment, 50 out of 63 recovered, no case proving fatal in which bile was ejected by vomiting or otherwise. Large quantities of the pills and mixture were distributed amongst the natives, with the happiest effect ; the rate of mortality from the epidemic being reduced from 8 out of 10 to one in 15.

If the above relation be perfectly correct, it certainly affords strong presumptive evidence in favour of the contagious nature of cholera morbus. But when we consider how many errors human judgment is liable to, and how often coincidences are set down for consequences, we must say the paper does not carry perfect conviction to our minds.

POWERS OF LUNAR CAUSTIC IN ARRESTING INFLAMMATION.*

Mr. Higginbottom, whom our readers will no doubt recollect, has laid before the public some more cases of local inflammation, successfully treated by his favorite remedy, the nitrate of silver.

A servant girl, æt. 16, complained of pain and swelling attended with inflammation on the fore part of the knee. The skin was sore and hard to the touch ; pulse frequent and feverish—she was accustomed to kneel in washing, &c.—an emetic and purgative were given and the lunar caustic applied all over and beyond the inflamed part. Two days afterwards the swelling had much subsided ; the tenderness was gone. In a few days the girl was well.

This case was doubtless one of incipient irritation and inflammation of the bursa mucosa. We have seen similar instances, where leeches, lotions, rollers, &c. have been applied, and, at the end of some weeks the patient has been worse than at first.

A servant maid, æt. 24, pricked the middle finger of the right hand. It became swollen and extremely painful, as well as the back part and palm of the hand. On opening the wound with the lancet a little pus escaped. The caustic was well applied to the wound and also to the inflamed parts of the finger, and hand. An emetic and purgative were given and the hand kept in a sling. The symptoms had disappeared in the course of two days, and she quickly recovered.

A girl, æt. 20, wounded the first joint of the fore-finger with the bone of a hare. In a few days afterwards the finger became swollen, painful, and affected with erysipelatous inflammation reaching to the back of the hand, and bordered by a ring of a more vivid colour. Caustic ap-

* Med. and Phys. Journal for May, 1826

plied as usual. In two days time the swelling had become puffy, and the pain disappeared. The hand, in a few days, was quite well.

A country woman had several fingers and great part of one hand much swollen with considerable pain; some fever: tongue white; a degree of pain in the axilla. An emetic and a purgative with calomel were given, and the lunar caustic applied. Three days afterwards the patient was free from complaint.

We must acknowledge that we have seen cases apparently quite as simple as several of these end in a very different manner. Some have run on to suppuration, sloughing, and ended in amputation. Other patients have had the luck of being on the list for a few weeks, perhaps months, and escaped at last with a stiff hand or knee as the case might be. Few, very few, have got off so cheaply as our author's patients. Mr. Higginbottom recommends the inducing of an eschar over the seat of an internal disease or inflammation. We think this mode of employing the caustic will hardly be of such service, for here the caustery can operate but as an issue, having no local nor specific action in checking the inflammation.

HYDROPHOBIA SIMULATA.

In the second number of the New Edinburgh Journal there is a case related by Dr. Bardsley of Manchester, where a female servant, without any ostensible object, applied some irritating substance to one of her legs, asserted that she had been bitten by a suspicious dog, and afterwards exhibited a train of hysterical symptoms, some of which assimilated with certain phenomena attendant on hydrophobia. We agree with Dr. Bardsley that this young female produced an artificial sore—that she afterwards renewed it in the hospital—that she attempted to deceive the medical officers there on two or three occasions—and that, shortly after her discharge, she committed a crime which sent her to a prison:—and yet, we are inclined to think that all this was not simulation, in the common sense of the word, but a species of mental aberration in a nervous female, which it was not in her power to resist. Dr. Beck observes that “diseases are generally feigned from one of three causes—fear, shame, or the hope of gain.” Yet Dr. Bardsley admits that his patient “must have been influenced by some other motive; for she had nothing to fear, nothing to be ashamed of, and no prospect of gain.” “He can only attribute her disgraceful conduct to that same depravity of heart, and want of moral principle, which led her to the commission of a more heinous crime, shortly after her discharge from the hospital.” But we would submit to Dr. Bardsley, whether the following phenomena were simulated?—“Pulse was rapid and strong—tongue furred—skin dry—bowels constipated—*catamenia absent for several months.*” p. 250. We are led to a more charitable conclusion. We believe the poor girl was actually ill—that her nervous system was deranged—and that, under a partial hallucination which she could not resist, she was led blindly by a predominating impulse to acts which, in

a state of perfect corporeal sanity, she would have abhorred. There is a young lady now in London, affected with some cardiac disorder, and of a highly hysterical disposition. She has been long attended by our friend Dr. Nuttall, whom we have often met in consultation on the case. Sometimes, in the midst of the most calm and intelligent conversation, she will start from her sofa, like a tygress, and throttle her medical attendant, or pummel him soundly with clenched fists—and then as suddenly fall back exhausted and pour forth a flood of tears at the thought of what she had done. Is not this a momentary obscuration of the intellect—a blind and involuntary impulse which she has no power to resist—no previous wish to put in force—no object thereby to obtain? We think so. And we conscientiously believe that such was the situation of Dr. Bardsley's unfortunate patient. The strong arm of the law, however, will make no such allowance for her last act—and the event, by curing her of her nervous and hysterical disorder, will, we have no doubt, put an end to her supposed "simulations," as well as to her propensity to crime.

ON THE INSALUBRITY OF THE AIR OF MARSHES IN COMMUNICATION
WITH THE SEA. BY M. GEORGINI, OF LUCCA.*

The deleterious influence of marshes on the health of those who live in their neighbourhood, is but too well known, and is a subject which well merits the attention both of the physician and the legislator. It is also well known, though hitherto not clearly accounted for, that all marshes, even when close together, and consequently under the same climatorial circumstances, are not equally inimical to human health and human life. Of this fact Italy offers a striking example. In certain parts of that interesting country, the vicinity of marshes does not diminish the fertility or the population;—while, in other localities, it exercises the most baneful powers. It was long ago conjectured, but not proved, that admixture of sea-water with that of marshes, increased the malignity of the exhalations issuing thence, and the problem would now appear to be solved by events which have taken place in Italy.

Between the Ligurian Apennines and the Mediterranean sea, lies a marshy tract of coast, about 12 Italian miles in length, and varying from two to four in breadth, traversed by several mountain streams or rather torrents, which are discharged into the ocean, or into the morasses bordering thereon. The marshy plain in question may be considered as an alluvion deposited by the rivers Arno and Serchio, and is bounded on the sea-line by a sort of embankment, only a few feet above the level of the ocean. The waters collected by rains, &c. are discharged from three basins into the sea by natural or artificial canals. The level of the stagnant waters is below high-water mark, and somewhat above the ocean during ebb tide. In consequence of this circumstance, and before

* Archives Générales.

any hydraulic works were constructed, the flood-tide changed the currents of the different exutories, and caused them to run backwards into the morasses, mixed, of course, with a proportion of sea water. While this was the state of things, the population of this wretched district was very scanty ; and Viareggio, now a large town, consisted of only a few huts. The natives, who were few in number, were constant victims to diseases of the liver and spleen—the children were sickly—and old men were no where to be seen. The unhealthiness of the place had, in fact, arisen to such a height, that the culture of the olive tree, with which this fertile tract abounded, was almost entirely abandoned to strangers, who, of course, fell annual victims to the malaria of the marshes. Various attempts were made to remedy the evil ; and at length, about the year 1741, a complete stop was put to it, by the construction of valvular gates, which permitted the efflux of the waters from the marshes, but prevented any reflux of water from the ocean. The effect was instantaneous and surprising. The insalubrity disappeared immediately these flood-gates were completed, and only partially re-appeared when they were out of order, and permitted the admixture of salt and fresh water in the marshes. Viareggio is now so salubrious as to be much frequented by the neighbouring wealthy inhabitants, as a place for sea-bathing and enjoying the delightful sea-breezes in the heat of summer. The population has rapidly increased, as a matter of course, since the happy change in the climate, and Viareggio, which, in 1733, contained only 330 inhabitants, now shews a population of between four and five thousand.

That this fortunate change was owing to the means above-mentioned, we are not disposed to deny ; nor do we doubt that the admixture of salt and marshy water may have a deleterious influence in the production of malaria ; but it is also unquestionable that the most deleterious exhalations issue from morasses which have no communication whatever with the sea.

MR. RICHMOND ON CATARACT IN INDIA.

In the May Number of the Medical and Physical Journal, is a paper by Mr. Richmond, of the 4th Light Dragoons, on Cataract, &c. in India, which shews in so favourable a light both the *surgeon* and the *man*, that we shall give it all the circulation our pages can afford.

The report is dated at Poonah, from the 6th May to the 12th December, 1824. In that space of time 504 were restored to sight ; of these 407 were cataracts, 9 artificial pupils and 2 pterygiums. A very great number of these can read well without the aid of glasses, many would be benefited by them, as they have the flattened cornea of old age ; some, 29, lost their sight afterwards by their imprudence and intolerance of restraint, which is a very great obstacle to success in operations on the natives of India. Our author remarks, that to manage these people with ease, light must be given in one instant, and with as little pain as possible, he further observes, that couching may be per-

formed without the patient suffering more than he does in blood-letting, scarcely so much. It was our author's custom to go round through town and village seeking the blind, that he might restore them their sight. One evening he went down to the river-side, to operate on an old blind woman. She had a cataract in her right eye, this was removed in an instant, and her sight given back to her. On his return he was surrounded by halt and lame and blind; and before dark, nine cataracts were removed. His fame spread, and patients came from all the country round, to the distance of 150 miles to visit him. Our author too, journeyed to considerable distances to effect his benevolent mission. He rode a course of fifty miles to Telligahum and the adjacent parts, where he operated with success on 27 cataracts; and on 222 with the same result at Admednuggur, in the short space of two months; four artificial pupils too were made here. The history of a boy, twelve years of age, who had a new pupil cut out after eight years blindness, reminds us strongly of Honoré Trezel, who our readers will, perhaps, recollect had his hearing restored by an operation. This child, on receiving vision, was so overjoyed at the delightful change from utter darkness to the pleasant light of day, that he tore about the place half mad, took up every thing he could reach, examining it with the hand and eye, with insatiable curiosity. Another boy, who was almost congenitally blind, on having vision restored, was at first quite stupid, and it was some time before he became accustomed to this new sensation. To pursue the thread of our narrative. Our author would journey thirty and forty miles a day, to restore sight to the inhabitants of distant places, and return, loaded with blessings, some literally "laying hold of the hem of his garments," with every expression of gratitude. Almost all classes of people were equally liable to cataract; if any thing the peasants, artisans, and coolies more so than the higher ranks. The disease was equally prevalent in country and town. To some, after operation, our author found the common spectacles, ground so as to throw the focus considerably back, of very great service. On the 7th December, 1824, our author received a letter from the Honourable the Governors in Council through the Medical Board, requiring him to instruct the native practitioners in the various operations on the eye. This he did, and eight Mussulman Doctors attended his lectures with considerable diligence, particularly on operation days, which proves, we think, that the love of the knife is not confined to England. The native mode of operating for cataract is clumsy enough. It is this: with their instrument, an old rusty lancet, the point broken off, and coarsely ground to an oval form, they pierce the lower hemisphere of the globule behind the iris, then pass a triangled copper probe through the lacerated orifice into the eye, and endeavour to depress the cataract. In old people they succeed once in seven or eight times, but where the lens and its capsule have a diseased attachment, and the vitreous cells are unbroken, their prospect of success is feeble indeed. If they do not bring on inflammation, they frequently induce amaurosis. This statement is in contradiction to the idea which has got abroad, that these rude operators on the eye are very fortunate.

In conclusion, we must beg to tender our meed of applause, humble though it be, to the author of this paper. Had a man appeared four centuries ago, whether on the banks of the Ganges or the Tiber, and worked what he has worked, assuredly he would have been dignified by the vulgar, as a prophet or a saint. As it is, though we fear he cannot hope for canonization, yet he has, what is, perhaps, as valuable, the applause and approbation of his brethren. Indeed, seeing what we see, and hearing what we hear every day, it is pleasant to turn from members who disgrace the profession, to which alas! they belong, to those who, like Mr. Richmond, give it a character in the world's eye for benevolence and good-will.

INFLUENCE OF CIVILIZATION ON THE INCREASE AND PERPETUATION OF DISEASES.

In the last Number of our junior cotemporary of the North, there is a short paper on this subject, by Mr. Abraham, of Carlisle, in which we think there are many just and judicious reflections. That some of his conclusions may be carried a little too far, we do not deny; but we are convinced that his principles are correct in general. The increase of insanity and of other diseases in civilized life is the first subject touched on by Mr. Abraham, and here it is that he indulges in some curious speculations. The reason why we see so few instances of insanity, and indeed of chronic diseases, among the *uncivilized* tribes, is, he thinks, that the difficulty of procuring the necessaries of life, and their precarious supply, rapidly cuts short the existence of those whose physical or moral defects preclude their taking an equal share in the toils of the community, where, among certain tribes, parents even abandon such of their offspring as are incapacitated by congenital deformity for labour or warfare.

“ But it is totally different in civilized life. Here the idiotic may prolong their existence, and perpetuate their species; for the degree of imbecility must be great indeed, to disable an individual from expending a stated income, or from partaking in the peaceful and monotonous labours of agriculture and manufactures; they are not left to perish, helpless and unfriended, as in the wilds of America; or even, if we may believe some travellers, as in the north of Europe and Asia. The madman who, in the one situation, would quickly fall a victim to his unconscious crimes and eccentricities, is in the other protected by equitable laws; has his property guarded by official trustees; all the resources of art are expended in mitigating his calamity, and he but too often leaves behind him a numerous progeny, who feel through all their ramifications, the evil entailed on them by their ancestor, and extend it in every direction. Blindness, deafness, and dumbness, which, in the savage state, are incompatible with those exertions by which alone life can be supported, we too often see perpetuated in Europe, in one family, from generation to generation. Individuals with tuberculated lungs, who, in the vicissitudes of savage life, would quickly fall victims

to pulmonary inflammation, are protected by the refinements of civilization from the inclemency of the seasons; and are usually preserved, by medical interference, and the comforts of domestic life, long enough to leave families to lament their untimely loss. What multitudes of people do we not daily see, who, by judicious diet, change of air, medical treatment, surgical operations, and other remedial powers, unknown to the uncultivated savage, are rescued from the mortal grasp of pleuritic, of gouty, of rheumatic, or of strumous inflammation, to drag about for the remainder of life a broken constitution, or a mutilated person, and to transmit to posterity a precarious existence, and the seeds of irremediable disease!" 248.

Mr. Abraham thinks that the introduction of inoculation, and still more of vaccination, has increased the list of chronic or constitutional maladies; and we think it not improbable. Many infirm constitutions—thousands of children with the germs of hereditary disease, would be annually cut off by the violence of the natural small pox, but who resist the milder form of inoculation, and who, of course, suffer nothing from vaccination! But however probable this may appear to the medical philosopher, we do not see how it can be acted on by the statesman or legislator.

Speaking of mental and corporeal diseases, our author makes the following eloquent reflections.

"Perhaps, however, we may rationally indulge a hope, that, in the hidden resources of a bountiful Providence, there is some remedy in store to check the progress of this terrible evil; and that beautiful system of compensation, which we observe in the government of the human race, and which seems to leave no evil, whether moral or physical, without its appropriate remedy, encourages the idea. This check, if any such be found, must, I am convinced, be looked for in the moral feelings of mankind; for when the formidable nature of the evil becomes more fully appreciated, individuals of sane families will become loth to unite themselves to those who are predisposed to mental or bodily disease, and thus the families of the latter description, may possibly become insulated and gradually worn out, from celibacy, and the concentration of infirmity from mutual alliances. And, unless the operation of the causes I have mentioned, as tending in civilized society to the increase of hereditary morbid predisposition, be corrected in this, or some similar manner, a few more centuries of civilisation, refinement, and luxury, will, in all probability, find the human race one melancholy accumulation of fatuity, madness, and disease." 333.

We do not take quite so gloomy a view of the case as is represented in the latter part of the foregoing passage. There are many sources of health springing up in modern times, and it is quite certain that the average range of life is now extended beyond what it was fifty or sixty years ago—that is, that the probability of living a certain number of years, from any given period, is now greater than it was, as the various Life Assurance Societies well know. This is probably owing to temperance, increased comforts in living, and the extension of more correct medical knowledge.

A CASE OF EMPYEMA SUCCESSFULLY TREATED BY THE OPERATION OF PARACENTESIS THORACIS,—BY THOMAS JOWETT, ESQ. RESIDENT SURGEON TO ST. MARY'S HOSPITAL AND DISPENSARY, NOTTINGHAM.

[*EXTRA-LIMITES.*]

ALTHOUGH empyema may be distinguished with considerable certainty in its advanced stages, when circumstances induce us to suspect its existence; it nevertheless sometimes happens that cases do occur, in which the general symptoms are too obscure, even to lead to the necessary examination of the thorax by the eye and percussion. Under such circumstances, the stethoscope will readily furnish important indications; and, as the following case appears to me well calculated to prove the utility of auscultation, I am induced to hope its details will be thought worthy of publication.

Fanny Cockayne, aged nine years and a half, lace-runner, was admitted an out-patient of St. Mary's Hospital and Dispensary, Feb. 24, 1824. At her admission she laboured under pain in the epigastrium, vomiting and other symptoms of gastric irritation or inflammation. The medicines prescribed for her gave relief, and after being once repeated she discontinued her attendance.

On the 23d of March she returned again. Her appearance indicated considerable suffering,—she said she felt ill and weak, but denied having any pain or uneasiness; nor could I elicit a satisfactory opinion as to the nature of her malady, by interrogating my patient or her mother. I prescribed some powders with calomel and rhubarb.

At her next attendance, on Tuesday, March 30, she appeared much worse. It was with great difficulty that she had walked to the dispensary:—the countenance was pale and sallow, and very expressive of pain;—the lips were pallid;—the tongue coated with yellow fur;—the appetite lost;—and the whole body considerably emaciated. So great, indeed, was the unfavorable change that had taken place since her preceding visit, that I was convinced she could not long survive, unless some further insight into the nature of her disease was obtained. With the view to acquire such information, I again closely interrogated my patient and the mother; and I learnt, in addition, that she had *a cough*, attended with a little expectoration,—was feverish in the night,—and had complained for a day or two of a pain in the right axilla, which was not aggravated by taking a deep inspiration.

My next step was to apply the stethoscope, which I did (without removing the clothes) above each of the clavicles, in the angle formed by the bone and the anterior edge of the trapezius muscle. On the *left* side I heard the respiration *very loud*: on the *right* it was *inaudible*.

Having now obtained a clue to the disease, I uncovered the thorax, and noted the following particulars. **STETHOSCOPE.** On the *right* side of the thorax the *respiration* is no where audible, except in a very slight degree along the spinal column, and in the superior part anteriorly. On the *left* side, it is every where loud. **PERCUSSION.** The *sound* of the *right* side is *dead* all over; that of the *left* is hollow. **MENSURATION.** A line drawn horizontally round the thorax, from the ensiform cartilage to the spine, is one inch and a half longer on the *right* side, than on the *left*. To the *eye* the side appears considerably enlarged: the ribs are widely separated from each other; and, instead of being distinguished by their prominency, as in the natural state, they form *depressions* between the intercostal spaces, the integuments of which bulge outwards and yield on pressure with a sensation not unlike fluctuation. The right side is almost passive in the respira-

tory movements of the thorax, and when the hand is placed upon it, it gives a sensation of smothered heat.

Upon these indications I felt no difficulty in giving the following diagnosis. *Right cavity of the thorax filled with fluid, which compresses the lung.*

(The medicine prescribed contained digitalis and squills.)

Mr. Oldknow, the consulting surgeon of the institution, visited the case the following morning, (Wednesday, March 31,) and having satisfied himself respecting the accuracy of the foregoing diagnosis, resolved to perform the operation for empyema immediately, as it appeared to be the only measure which afforded any prospect of recovery.

At the distance of three inches from the spine, and in the tenth intercostal space, counting from above downwards (that being the place where the bulging of the integuments existed in the greatest degree), he divided, in a line parallel with the ribs, the skin and intercostal muscles, and then continued his incision through the pleura. A stream of pus immediately spouted out to the distance of several feet, and continued to flow for several seconds; a fit of coughing then came on, which caused the stream to jet out forcibly during its action, whilst the inspiration immediately succeeding not only stopped the current, but also sucked air through the wound into the cavity of the thorax.

The whole quantity of fluid drawn off was three pints; more would have flowed, but as she was much exhausted and approaching a state of syncope, it was considered better to close the opening. The pus was of thick consistence,—of a greenish yellow colour,—inodorous,—perfectly uniform,—and did not separate or undergo any change by standing two days exposed to the air.

After the operation the breathing was much easier; she slept several hours in the night without coughing, and was less feverish than before.

Next morning, April 1, the pulse was 110—the surface of the body was warm but not hot—the cough was loose and easy, but occasioned pain at the wound.

By the *stethoscope*, the *respiration* of the affected side was just audible anteriorly as low as the fourth rib, in which extent of space there was *metallic tinkling* on coughing, and a good sound on *percussion*.

April 2. Pulse 110—has been much purged.

As she sits up in bed, very feeble *respiration* is audible posteriorly almost to the bottom of the scapula; there is *metallic tinkling* in the same parts as yesterday, when she coughs or inspires deeply. (Some laudanum was prescribed to check the purging.)

April 3. Pulse 112, 120—purging abated,—countenance good, and she seems improving,—sleeps well.

Percussion gives as good a sound in the anterior superior part of the *right* side, as of the *left*; below the level of the nipple it is more or less *dead*. The *metallic tinkling* is only audible superiorly.

April 5. Wound nearly cicatrized—continues to improve. There is some *respiration* as low as the bottom of the scapula; the *metallic tinkling* is not audible, except when she coughs *strongly* as she lies in bed.

April 8. Coughs but little,—no expectoration,—no fever,—perspires a little in the night. The *metallic tinkling* disappeared two days ago: the *respiration* is pretty strong above the clavicle, and to the third rib below it; just audible as low as the nipple anteriorly, and a little lower in the back: there is *resonance* of the voice below the clavicle. *Percussion* gives the same results as before. The side is not enlarged more than one third of an inch in circumference.

April 14. The cough is worse, and she expectorates about three ounces

of patches of pus mixed with clear mucus, in the course of a day ; she sometimes sweats in the night ; the posture is mostly on the back, inclining a little to either side, but to the right in preference.

By the *stethoscope* there is *alteration* of the tone of the *voice* below the right clavicle : the *respiration* remains as before. The *impulsion* of the *heart* is perceived in the inferior part of the side,* where the sound on *percussion* is dead.

The resonance and alteration of the voice above the clavicle, induced suspicions of *tubercles in the lungs*.

April 16. Pulse very quick,—no night sweats,—expectoration more decidedly purulent and full as abundant.

By the *stethoscope*, the *alteration* of the *voice* below the clavicle is very evident ; I believe it is *pectoriloquism* and not *egophony*, but the difficulty of prevailing with the child to talk prevents my being certain.

April 19. Mr. Oldknow visited her yesterday, and agreed with me in thinking the *change of the voice* below the clavicle to be *pectoriloquism* rather than *egophony*. The expectoration is diminished, there are no night sweats,—pulse 110.

April 21. She is improving again,—no expectoration,—little cough,—pulse 120—slight perspirations the two last nights.

The *resonance* remains as before : the *respiration* is *audible* anteriorly to the level of the nipple, and so low *percussion* gives a good sound ; lower down, the sound is dead and the *respiration* absent. The side still appears enlarged.

April 24. Pulse 112, 120—cough continues unattended by expectoration—slight night sweats. She complains of pain in the place where the operation was performed, and, on examining, I find there is a painful fluctuating tumour pointing outwards. (Apply a poultice)

April 26. The tumour burst yesterday, and discharged about two ounces of pale greenish yellow pus, and pus still continues to ooze through the opening in small quantity. Within the last few days, a considerable curvature of the spinal column has taken place. There is *pectoriloquism* and gentle *mucous* rattle below the clavicle : the *respiration* is distinct half way down the scapula.

April 28. Pulse 108,—cough rather worse, and there is a slight return of the expectoration. The wound has discharged more freely since the cough increased. (Decoction of cinchona prescribed.)

May 1. Pulse 112,—cough the same,—expectoration scanty,—discharge from the wound diminished. Examined with the *stethoscope*, she seems to cough through the tube of the cylinder into the ear, when the instrument is applied below the clavicle.

May 5. Pulse 108,—no expectoration,—wound sometimes discharges a little pus,—sweats occasionally in the night. The spinal column is more curved, the concavity of the curve being to the right side.

May 10. Feels stronger, and has a craving appetite. To the *eye* the right side now appears considerably contracted in all its dimensions ; the ribs are drawn very close together ; the shoulder is depressed, and the scapula descends lower than on the opposite side. There is a great sinking inwards of the whole of the right side, and a bulging outwards of the left, which appears to be partly occasioned by the curved state of the spine. By the *stethoscope*, the *respiration* is audible as low as the sixth rib.

May 13. Pulse 90, pretty full,—continues improving.

* This depended upon the fluid still remaining in the cavity of the chest.

May 15. Pulse only 76, and somewhat irregular in strength and frequency: the heart's action is extensive, and felt as much on the right side of the sternum as on the left.

May 22. Very little cough and no expectoration—sometimes sweats in the night—wound healed—feels stronger and gains flesh. The spine appears less curved than before. *Respiration* just audible at the bottom of the right side.

May 26. The spine is becoming straighter every day. In order to preserve the appearance of the deformity, Mr. Smith, an ingenious artist, has this day made a sketch of the trunk.

June 16. She now works part of the day, and is strong enough to walk to the dispensary, a distance of about a furlong. The spine is straighter, the side more expanded, and the *respiration* stronger, although still weak.

July 5. The spinal column is become nearly straight, and the right side has re-enlarged, it being only one third of an inch smaller than the left in circumference. The *respiration* is equally strong on both sides, anteriorly, and superiorly; *weak* but distinct in the lower part of the back on the right side. *discharged cured.*

October 14. Continues quite well. There is still a perceptible curve in the spinal column: the right scapula descends lower than the left, and the side appears rather the smallest, although there is little difference manifest on measuring. Examined with the stethoscope; the *respiration* is distinctly audible throughout the whole of the right side, but is not so strong every where, as on the left side.

1825. *February 4.* Continues quite well and has grown considerably—she has, however, a slight cough, and generally sleeps on the right side. The contracted state of the side and the spinal column remains the same: the *respiration* is distinct but weak, and there is still a *whispering kind of noise* when she speaks, below the clavicle. Dr. Storer, who had expressed a wish to see the patient, examined the appearance of the thorax a few days ago.

Remarks. The researches of modern pathologists have so satisfactorily shewn the majority of thoracic effusions to arise from an inflammatory affection of the pleura, that I am naturally led to consider pleuritis as the most probable cause in this instance. This opinion is rendered more probable by the contraction which took place in the side, and the diminished intensity of the respiration, which continued after the whole of the fluid was absorbed; as these circumstances prove the existence of the false membranes on the pleura, which accompany inflammations of those membranes. It is asserted by authors, that the effusion of pleurisy is more purulent in proportion as the inflammation is more violent; if this be true, it cannot be correct to attribute an inflammatory origin to the present example, as no case could be more truly devoid of an acute character; but I am disposed to doubt the accuracy of the assertion, as it by no means accords with my experience: I have found the effusion much more purulent in one chronic example than in any case of the most acute character which I have examined after death.

The first examination of the thorax was sufficient to remove all doubt as to the nature of this interesting case of disease. The *dead sound* on percussion, and *absence of respiration* throughout the side, were of themselves satisfactory grounds to found the diagnosis upon.

It cannot be denied that the enlarged state of the side, and the fluctuating sensation of the soft parts bulging outwards between the ribs, would most probably have led to the same diagnosis, if the thorax had been ex-

posed to view ; but, it must be recollected that, after a careful investigation of the general symptoms, *no motive existed* to induce me to make that examination, and it was not until I had applied the stethoscope that there were any grounds for suspecting the true character of the malady.

Let us now attempt to trace the progress of the case after the performance of the operation. It has been stated, that air was sucked through the wound into the cavity of the pleura, and that the whole of the fluid was not evacuated ; it, therefore, follows that the chest, after the operation, contained both *air* and *pus*. The presence of the former was indicated by the *hollow* sound on percussion superiorly, and that of the latter by the *dead* one in the lower parts : whilst the existence of *both* was shewn by the *metallic tinkling*.

At the time when Laennec published his work, he suspected, but was not certain, that the phenomenon of metallic tinkling might exist in cases of empyema and pneumothorax *without* fistulous communication with the bronchia : the passage to which I allude, as well as the relation of the case referred to, is omitted in Dr. Forbes' translation, and I may, therefore, be permitted to quote it. " Il est peut-être un troisième cas dans lequel le tintement métallique peut avoir lieu ; mais comme je ne l'ai rencontré qu'une seule fois, et que ce phénomène est nécessairement d'une durée fort courte, je ne puis guère en parler comme d'une chose certaine, quoiqu'elle m'ait paru évidente. Je venais de reconnaître, par la comparaison de la percussion à l'auscultation, l'existence d'un pneumo-thorax avec empyème, chez un malade dont on trouvera l'observation dans le chapitre suivant.* Je fis mettre le malade sur son séant en continuant à tenir le cylindre appliqué sur sa poitrine et à l'instant j'entendis distinctement un bruit semblable à celui d'une goutte d'eau qu'on laisserait tomber dans une caraffe aux trois quarts vide. Ce bruit était accompagné d'un tintement métallique évident et qui dura près d'une seconde. (De l'Ausc. t. II. p. 106.)

Cockayne's case proves the accuracy of Laennec's suspicion : in it there could not possibly be any illusion :—the phenomenon was distinctly and repeatedly heard for six days ; and I, moreover, marked the gradual absorption of the gaseous fluid, by the daily diminution of its intensity, and the progressively decreasing extent of the space in which it was heard.†

During the first fortnight after the operation, no unfavourable symptoms occurred : the absorption of the pus left in the chest was shewn to be going on, by the gradually increasing extent of the respiration. The report of April 14th, gave just ground for new fears : the increased cough—the character of the expectoration—night sweats—and resonance of the voice below

* The case alluded to is that of Louis Francois Brouan, page 157, et seq.

† It is due to Dr. Collin, whose useful work, "*Des Diverses Méthodes d'Exploration de la Poitrine*." (Paris, 1824. 8vo. pp. 116) has more merit than pretension, to state that he has given a clearer description of the metallic sounds and their pathologic indications than is to be found in Laennec's Treatise ; and, although his information was most probably derived from Laennec himself, it must be evident to every peruser of the tract, that he has been an *ear-witness* of what he has described.

It may be useful to point out an important, though merely verbal, error in Dr. Forbes' abridged translation of the above work. The passage "in the case of gaseous and liquid effusion at the same time, *and without* bronchial fistula" should be, "*and with* bronchial fistula." See Forbes on the Stethoscope and Percussion, p. 298, and Collin, p. 100.

the clavicle, induced strong suspicion, that the softening of some tubercles existing in the lung was taking place ; and this suspicion was rendered but too probable by the *very evident alteration* of the voice observed on the 16th—the *pectoriloquism* and *mucous rattle* of the 26th, and the appearance of *coughing through the tube* on the 1st of May. The opinion derives further confirmation from the consideration, that if there were tubercles there would most probably be *adhesions* of the top of the lung : and that there were adhesions may be inferred from a circumstance, that scarcely admits of other explanation, viz. the *scarcely audible respiration* in the anterior-superior part of the side, before the performance of the operation.

Upon mature consideration of the whole of the evidence, I am of opinion, that an excavation in the lung was really formed, and it appears probable that it was of a tuberculous character.

The last process to be noticed is the contraction of the side and curvature of the spine, which appear to have commenced about April 24th, and after increasing in degree for several weeks, to have then returned to the natural state. There can be little doubt that the contraction of the side depended upon a tough layer of partly organized lymph, firmly investing the compressed lung and preventing its being sufficiently inflated to fill the vacancy formed, as the fluid was absorbed ; and the parietes of the thorax were, consequently, drawn inwards, and the spine curved, so as to diminish the capacity of the cavity.

The subsequent re-enlargement may be explained by the supposition that the layer of the lymph upon the pulmonary pleura, although firm enough to prevent the rapid expansion of the lung, was not so far converted into rigid cellular tissue as to be incapable of gradual distention.*

With respect to the chest enlarging again after having been contracted, a circumstance the possibility of which, does not appear to have been contemplated by any pathologist, I am not aware that there is any other example besides the present on record, except the imperfect notice of a case by Rullier in the *Dictionnaire des Sciences Médicales*. Two months and a half after an attack of pleuro-pneumonia, in a girl eleven years of age, a tumour arose in the lower part of the side, and after increasing rapidly, it opened externally, and discharged a large quantity of sero-purulent fluid and flakes of lymph : the patient recovered. “ Pendant toute la durée de cette cure naturelle, la poitrine s'affaissa beaucoup du côté malade, mais nous avons eu, il y'a peu de jours encore, la satisfaction de constater sur cette jeune personne qui approche de sa seizième année, que cette *difformité qui a diminué* par les progrès de l'âge, n'a plus aujourd'hui rien de choquant”†

Nottingham, 1826.

P. S.—I have twice, very recently, had occasion to resort to paracentesis of the thorax, in hopeless cases of effusion arising from pleurisy : in both instances the operation was the means of *prolonging*, although it did not eventually *save* the lives of the individuals. I have not leisure to give the details of the cases at this time. It may be useful, however, to mention one or two circumstances, which may tend to render the operation generally safer, and even successful in some cases, in which it would be dangerous, without the precaution, I am about to relate.

In evacuating fluid from the chest as soon as the great distention of the

* Upon the subject of contraction of the chest the reader may consult Laennec, tome I, p. 369 et seq. or Forbes' Translation, p. 159.

† Tome XII. p. 70. Art. Emphyème.

side is removed, air is drawn through the opening into the thoracic cavity, during the act of inspiration—especially during the forcible inspirations which precede the act of coughing.

Now, for two reasons, it is desirable to prevent the admission of air into the pleura, because, 1stly, To evacuate *fluid* and to admit air in its place is merely to substitute one cause of compression of the lung, for another. 2dly, The admission of air, occasions the decomposition of the fluid remaining in the chest, whereby it is rendered fetid and acrid, and becomes the exciting cause of fresh inflammation of the pleura; independent of the additional compression of the lung, from the gas extricated during the decomposition of the fluid.

For these reasons I propose to perform the operation in the following manner, when any case presents itself in which the removal of thoracic effusion appears desirable.

Having made a small incision through the integuments only, in the place selected for the operation (which will most commonly be in the back in the sixth or seventh intercostal space, but may require varying under some circumstances,) thrust a *small trocar* carefully through the muscles and costal pleura; having withdrawn the trocar and left the canula in the wound, join a tube connected with Reid or Weiss's syringe to the canula, and slowly abstract the fluid by the syringe, continuing to work it so long as the piston moves freely, or, until any symptoms come on which render it necessary to desist. Then remove the canula from the wound, without previously separating it from the syringe, approximate the edges of the integuments by plasters, and apply a compress to make it more secure.

The object I have in view in recommending a *small trocar* to be used, is to make the opening as small as possible, and thereby prevent any danger of the wound re-opening. In both my recent cases, the operation was performed with a scalpel, and the wound was burst open again by coughing some days afterwards. Although the incision appeared to be small at the time, yet, on examining the body in the last case, the costal pleura was found to be perforated to the extent of half an inch.

I am aware that authors recommend a lancet or scalpel to be used, under the idea that there is less danger of wounding the lung with them: it must be evident, however, that a trocar need not be introduced deeper, than any other instrument; besides that the employment of the stethoscope will, in some cases, render it quite safe to thrust a trocar in its whole length into the thorax.

I may add, in conclusion, that the stethoscope and percussion in both instances, furnished the indications of effusion. In neither case was there any dilatation of the side or fluctuation between the ribs. In one case there was a great curvature of the spine, distortion of the whole thorax, and approximation, with immobility, of the ribs.

Remarks. The history of the operation of paracentesis thoracis for empyema and hydrothorax, would well deserve an article in a periodical journal, and we shall probably dedicate one to this interesting subject, ere long. Kurt Sprengel has given a most erudite history of this operation, from the days of Hippocrates to the close of the last century, occupying 87 pages of letter-press. In this place we shall only note one curious fact, that the identical improvement suggested by our excellent friend, Mr. Jowett, was actually put in force more than a hundred years ago, and with the best effects. Scultetus affixed to the canula between the ribs a syringe for the purpose of sucking out the pus or other fluid extravasated in the thorax. In the year 1767, Dominique Anel published a work entitled, "L'Art de Succer

les Plaies," in which, (Sprengel informs us,) he advocates the operation of paracentesis in hydropic and purulent effusions within the chest, and has described different syringes and other instruments for pumping out the fluids. "Aussi imagina-t-il différentes seringues et autres machines à pomper, avec des canules dont les orifices étaient fort larges et diversement configurés."—*Histoire de Médecine*, vol. 9, p. 35. The suction of wounds in the chest followed by extravasation was very common at one period, as we are informed by La Motte, so that when men went out to fight duels, they took suckers with them, and the success of this practice was so great that it was, at length, attributed to the devil, and the priests refused extreme unction to those who submitted to so diabolical a measure! Such were the times in which the "tide of civilisation (as Mr. Canning says,) was rolled back," by intolerant superstition! We think the principle of suction, or, in other words, the knowledge of atmospheric pressure, will soon be very usefully employed in more cases than those of poisoned wounds.—*Ed.*

RUPTURE OF THE UTERUS IN EARLY PREGNANCY.

Messrs. Moulin and Guibert presented to the Academy of Medicine, in the late autumn, a piece of morbid anatomy, of which we shall here give the history, somewhat abbreviated.

Mad. Cayer, 26 years of age, had laid in of her first child, at full term, in the year 1821. This event was succeeded by two miscarriages, one at four, and the other at 5 months, in the years 1823 and 1825. Her health had not suffered from these accidents, and she again became pregnant in May, 1825. Nothing particular occurred until the 7th of August, when, having taken a very hot bath and dined lightly, she repaired to an assembly, where she amused herself with dancing, of which she was passionately fond. In the midst of a waltz, she felt something crack in the lower part of the abdomen, and instantly fell down in a state of syncope. She was conveyed to bed, and the most alarming symptoms rapidly supervened. The abdomen swelled and became painful—the pulse faltered—the countenance sank—the body was covered with cold sweats—inexpressible anxiety and restlessness came on, with vomiting, &c. Messrs. Moulin and Guibert were quickly on the spot; and, on examination, no discharge from the vagina was discovered, nor any thing unusual about the uterus. One of the medical attendants came to the conclusion, that a rupture of the *liver* had taken place. Twenty leeches were applied to the right hypochondrium, followed by fomentations, acidulated diluents, &c. At four o'clock in the morning, the medical gentlemen were again summoned, as the patient was said to be dying. More physicians were called in, and though all agreed that the poor lady was at the point of death, there was great discordance, as usual, in respect to the cause of the fatal catastrophe. The scalpel cleared up the mystery. There was nothing wrong in the head or chest. On laying open the abdomen, a quantity of pure and fluid blood flowed out. The liver and other abdominal organs were all sound. Attached to the uterus was seen a round mass of coagulated blood, in the centre of which was found a foetus of about ten weeks old, uncircled with its membranes. There was a rent in the fundus of the uterus, through which the foetus had escaped into the abdominal cavity.

Around this rupture the substance of the womb appeared rather softened, but not thinner than in any other part. There was no other morbid phenomenon worthy of record.

This is certainly a most rare, if not a unique case of rupture of the uterus:—For we do not recollect any instance of the kind on record, at so early a period of pregnancy. But a suggestion was started by one of the gentlemen at the academy when the parts were examined there, that the case was probably one of those which Carus calls *demi-extra-uterine* pregnancies—that is, where the foetus is developed in the parietes, instead of the cavity of the uterus, in the vicinity of the opening of a fallopian tube—a species of extra-uterine impregnation so accurately described by M. Breschet. Would the Cæsarian section, at an early period after the rupture, have offered any chance of success, with or without transfusion of blood?—*Archives*, 1825.

EXTRA-UTERINE FŒTUS REMOVED WITH SUCCESS.

This formidable operation has been successfully performed, it appears, by a Mr. Bull in Germany, during the last year. The woman was 36 years of age, and had borne children in the natural way. A tumour rose in the umbilical region, and at length broke in two places, discharging some pus. A surgeon enlarged one of the openings, when a quantity of sanies came away, together with portions of skin and hair. On farther examination it was ascertained that there was an extra-uterine foetation, and it was determined that gastrotomy should be performed. An incision was made, from above the umbilicus to within an inch or two of the pubes, when the foetus presented itself, and was removed. The umbilical cord was traced to the side of the uterus, and there it was seen implanted into a soft vascular network, which was probably the placenta. The whole was removed, the fluids sponged up, and the wound brought together by means of sutures. Inflammatory symptoms came on next day, and rose to an alarming height; but these were subdued, and the poor woman completely recovered, so as to be able to leave her bed on the 55th day from the operation.—*Archives*.

STRICTURE AND PERFORATION OF THE COLON.

A woman, 71 years of age, was received into the Infirmary of the Salpetriere on the 11th October, 1825, who could give no satisfactory history of her complaint. She was pale, emaciated, belly distended and painful on pressure; it was also sonorous on percussion—vomiting from time to time—pulse full and quick—skin hot and dry. Lavements, fomentations, and acidulated drink. This state continued during eight days, without any material change. The patient passed no stools during that period. On the 19th they began to think there were some faecal matters vomited up; and on the 20th there was no doubt of the fact. No passage through the bowels. From the 20th till the 24th, the patient continued to vomit dark-coloured matters, and death put a period to her sufferings on the morning of the 25th October.

Dissection. The abdomen was enormously distended—as were the convolutions of the intestines themselves, when the peritoneum was laid open. This distention disappeared at the commencement of the rectum, which was found contracted and wasted, so as to be scarcely traceable in the cavity of the pelvis. The colon was greatly distended, and the vessels of the intestines and mesentery immensely gorged. The peritoneum was healthy. In the left iliac fossa and in the pelvis was found a quantity of matters similar to those which had been vomited up. In the sigmoid flexure of the colon was found an ulcer, about nine lines in breadth, the bottom of which had penetrated the peritoneal coat, and permitted the exit of the contents of the gut. At the beginning of the rectum there was a stricture, which would scarcely admit a goose-quill, caused by a scirrhus thickening of the mucous and muscular coats of the intestine. This stricture occupied only a small space of about half an inch, above and below which, the coats were sound. From this stricture up to the stomach itself, the intestinal canal was greatly distended, and filled with fæcal matters and gas.—*M. Billard. Bibliothèque, Janv. 1826.*

SUDDEN AND MYSTERIOUS DEATH.

A young man (Lefevre) had been subject, during eighteen months, to pains in the epigastric region, which were aggravated by pressure—the tongue was occasionally white in the centre, and red at the sides—breath fœtid—bitter taste in the mouth—nausea—anorexia. To these symptoms were sometimes added diarrhœa, alternated with dryness of the skin and some febrile movement in the vascular system. These phenomena were generally dissipated by a few leeches, low diet, warm baths, and diluent drinks; and were always exasperated when the patient deviated from a low diet, and took stimulating food.

On the 2d November, 1824, LEFEVRE made a hearty breakfast, and was immediately afterwards seized with vomiting, restlessness, diarrhœa, and severe pains in the abdomen, coldness of the extremities, accompanied by feeble pulse and cold sweats. The symptoms were so extremely threatening, that M. Lombard, the medical attendant, conceived there was a perforation of the stomach or intestines, and prognosticated accordingly. Forty leeches were applied to the abdomen—with fomentations, &c. and M. Segelas was joined to the consultation. But no mitigation of the symptoms was produced, and Lefevre expired 17 hours after the commencement of the attack.

Dissection. On opening the abdomen a fetid gas was exhaled, and a considerable quantity of sero-sanguineous fluid escaped. The portion of peritoneum lining the abdominal parietes was covered with a multitude of small, round, and prominent tubercles, closely resembling an eruption of confluent small-pox. The intermediate spaces in the peritoneum were apparently healthy. The peritoneum reflected over the intestines was of a red rose colour, and presented a few of the said tubercles, as did the membrane where it is reflected over the mesentery and under surface of the diaphragm. There was no sign of

perforation. There was a portion of small intestine, about a foot in length, of a livid red colour externally. There were some erosions in the mucous membrane of the stomach, which was softened and disorganized near the pyloric orifice. This was also the case in the mucous membrane of the duodenum. There were some erosions and marks of inflammation in the lining membrane of the small intestines, and upper portion of the colon.

This case shews how speedily mortal may sometimes be an acute inflammation supervening on a chronic.—*Archives.*

PALPITATIO CORDIS.

Irregular action in the central organ of the circulation is always an alarming phenomenon—especially to the young practitioner, and leads him often into false prognoses.

Dr. BLAUD, Chief Physician to the Hospital of Beaucaire, has drawn the attention of his brethren recently to the subject of idiopathic palpitation, and relates some cases in elucidation. We shall first advert to the cases.

Case 1. A young woman, 21 years of age, in poverty and distress of mind, was carried to the hospital, on the 2d of April, 1825, having been two days ill. Excepting the functions of circulation and respiration, all the other organic actions appeared to be going on regularly. In the region of the heart were felt and distinctly heard the most violent and tumultuous palpitations, which sometimes subsided a little, but were readily excited by the slightest motion of the body. The pulse corresponded, being very quick, unequal, and intermitting. The respiration was embarrassed; but the respiratory murmur could be distinctly heard in every part of the chest. The complexion was natural—no œdema of the lower extremities—no difficulty in lying in the horizontal position. The complaint had come on suddenly, without any evident cause, unless it was the mental chagrin under which she laboured. One grain of digitalis was prescribed thrice a-day. *Second day.* The same phenomena. Two grains of digitalis four times a-day. *Third day.* Some amelioration of the symptoms. Four grains of digitalis every three hours. In the evening the young woman ate largely of some salted and seasoned tongue, and was soon after seized with vomiting, lipothymia, and other alarming symptoms, which lasted all the night; but the pulse had become small, slow, and regular. *Fourth day.* No palpitation. From this time she continued well, and was soon discharged cured.

Case 2. A man, 48 years of age, entered the hospital on the 29th May, having laboured under palpitation of the heart for two months, which had come on suddenly, and without any known cause. The pulsations were rapid, tumultuous, and could not be analyzed by the stethoscope. The patient heard them distinctly himself. The pulse was small, quick, irregular, and intermitting. The respiratory murmur

was heard throughout the chest, but yet there was oppression of the breathing. The lips were pale, and slightly blue. The man could not lie down at all—no swelling of the lower extremities—digestive organs regular in function. Two grains of digitalis thrice a-day. 30th and 31st. The same state—same prescription. June 1. Considerably better. The same medicine continued. 2d and 3d. The digitalis was increased. 4th, The pulse was down to 38, but very irregular. The pulsation of the heart could scarcely be felt. Three grains of digitalis thrice a-day. The medicine was continued till the 8th, and then suspended. The pulse was still at 38 in the minute, but regular, and all palpitation gone. The pulse soon arose to 42, but not higher till he left the hospital, which he did in a few days, feeling quite well.

Case 3. A woman 67 years of age, subject every winter to pulmonary catarrh, (her mother had been asthmatic) laboured under bronchitis for about a fortnight previous to the 25th December, 1824, when she was suddenly seized with great difficulty of breathing, and violent palpitation of the heart. These symptoms, more or less violent, continued till the first of June following, when the palpitation and dyspnoea became so constant and distressing, that she was obliged to apply for medical assistance. Antispasmodics of various kinds were given in abundance, but without any advantage. The paroxysms were exasperated in the night, and mitigated by day. The sulphate of quinine suspended them for three days and nights completely; but they then returned with the usual violence. She came under Dr. Bland's notice on the 18th June, with the following symptoms, viz. pulsations of the heart strong, precipitate, tumultuous—pulse small, irregular, and intermittent—dyspnoea and orthopnoea considerable—respiratory murmur audible in all parts of the chest—cough frequent—expectoration mucous—no pain in the chest—lower extremities infiltrated. Digitalis was prescribed in pretty free doses, and in a few days the urine became plentiful, the oedema disappeared, and the palpitation and breathing were considerably relieved. The pulse came down to 48 in the minute, and afterwards to 40, the patient feeling very comfortable and able to lie down and enjoy sleep. In the midst of these favourable circumstances, she suddenly expired, with scarcely a moment's warning.

Dissection. Heart perfectly natural—lungs crepitous—abdominal viscera all sound—head and spinal marrow presenting no appearance of disease.

This case offers a striking example of what is termed, and perhaps properly so, *nervous palpitation*. Physiologists may say what they please about the heart being *independent* of the brain and spinal marrow—but few men have experienced any sudden emotion, without feeling in their own breasts, the *influence* of the mind in the central organ of the circulation. This observation is very old—at least as old as Erasistratus, who discovered the passion of Antiochus through this channel of information. But the heart is influenced by the brain and nervous system, where the passions or emotions of the mind are not at all con-

cerned, and where we can see no connexion between the cause and the effect. The foregoing case is an example. There was no other cause but a nervous one, to disturb so long the function of the heart. We much doubt, however, whether this poor woman died of the disease for which she was under medical treatment. Such doses of digitalis as she was taking, with the action of the heart depressed to 40 pulsations in the minute, were sharp tools to work with! It is true, the œdematous swellings, the dyspnœa, and the palpitations were removed, or nearly so, by digitalis—and the patient was just on the point of being cured—when unfortunately, she expired. By an unlucky association of ideas, we are reminded of the Frenchman, who had just brought his horse to the point of living without food—when, malheureusement, the poor animal took it into his head to die.*

M. Blaud enters into some reflexions on the nature of this nervous affection, which gives rise to palpitation of the heart. He concludes that it is not *inflammatory*, since it generally gives way under the use of antispasmodics. Neither is it purely *adynamic*, since the inordinate action of the heart is increased by stimulants. To this last observation we cannot entirely subscribe, as we have seen palpitation of the heart subside on taking wine. Still the observation is, generally speaking, correct. The nature then of this nervous affection, Dr. B. thinks, is peculiar, or *sui generis*; and its treatment empirical. Be this as it may, he undertakes to prove that these nervous palpitations may be clearly and unequivocally distinguished from those which depend on organic disease of the heart or great vessels. This is an important diagnosis if always correct—which we fear it is not. “In nervous palpitation, says he, the pulsations of the heart are unequal, irregular, intermitting, sharp—the heart appears to bound—the extent of pulsation against the ribs is not greater than natural,—and the sound of the heart’s action is not different *in kind* from that which is heard in health. These signs, though few in number, appear to me sufficient to distinguish nervous palpitation from all other irregular actions of the heart depending on organic diseases—while its occasional cessation, long duration, sudden disappearance and unexpected return—together with the absence of those symptoms peculiar to carditis, hydrothorax, &c. leave no doubt in the mind as to the nature of the affection.”

The oppression, dyspnœa, œdema of the extremities, puffiness of the face, and blue tint of the lips, which sometimes accompany these nervous palpitations, depend, he observes on disturbance of the pulmonary circulation—and this disturbance is probably owing to want of rhythm or equilibrium of action between the right and left chambers of the heart. Dr. B. considers this kind of palpitation to be a serious disease—and

* Practitioners should recollect that the effects of digitalis, and of many other potent medicines, accumulate, as it were, in the system, and their explosion, when arrived at a certain point, is very dangerous, and not very unfrequently fatal. This is the case with colchicum, mercury, &c. For many excellent observations on digitalis, when carried too far, we refer to a paper of Dr. Maclean, in the second volume of the Medical and Physical Journal, page 113, *et seq.*

the more so, in proportion to its standing, and to its resistance to proper remedies. It may then, he thinks, determine aneurism, or enlargement of one or more cavities of the heart, and ultimately prove fatal.

Antispasmodics are the remedies on which practitioners have relied in this complaint; but he looks upon digitalis as almost a specific in nervous palpitation. He properly cautions the practitioner to watch the effects of the medicine, and immediately diminish the dose, or withdraw it entirely, whenever the pulse sinks below the healthy rhythm. He acknowledges that death in the third case, was probably owing to the digitalis completely paralysing the central organ of the circulation.—*N. Bibliotheque, Decembre, 1825.*

In the *Journal Gen. de Medecine* for Jan. 1826, we observe two interesting cases, related by M. Comte, in one of which there was strong reason to suspect organic disease of the heart, and in both of which, the digitalis was of essential service.

The first case was that of an unmarried lady, 35 years of age, who had been attacked with palpitation of the heart at the age of eleven years, in consequence of a fright, and which continued more or less violent for two years, and then the fits of palpitation became much less frequent, occurring only once a month or once in two months. This state continued till the age of 24, when the attacks were separated by still longer intervals—as three or four months. About this time she became affected with hæmoptysis for more than a year, and with the effect of removing the palpitation entirely till the age of 32 years. In 1823, they became very violent for nine months, returning several times every day, and at any time readily excited by the slightest moral emotion. They disappeared for three or four months—and, in September, 1824, returned, with alarming fits of syncope. On the 10th December, our author was called to this lady, who could not then move from her bed. The pulse was small and concentrated, with uneasy anxious feelings about the præcordial region, frequent palpitations, which could be seen and heard distinctly, face pale, no appetite, impossibility of sleeping, cold feet, menstruation irregular. Pills composed of camphor, nitre, opium, and digitalis were prescribed, every four hours, and produced a state of calm. The remedy was persevered in for some time, and the palpitations almost disappeared, except when excited by mental emotion. This ameliorated condition has continued up to the present time. But, it cannot be expected that a disorder (even of function) which has existed so many years, will cease all at once, under the best system of medicine or diet. The palpitations will doubtless return, with the causes that produced them; but there is fair reason for believing that the medicines prescribed above, have been beneficial in this case.

Case. The second case related by M. Comte, is detailed with great minuteness; and we shall be obliged to curtail it much of its fair proportions.

The son of the Baron de L——, an officer in the Guards, now

nine years of age, had been very delicate and susceptible from his birth. One of his brothers had evidently an affection of the heart—his mother appeared to have the same organ in a very weak state—and another brother had died of disease of the heart, as verified by dissection. The youth whose case now occupies our attention, was pronounced, in the year 1822, by Leroux and Dupuytren, to have—“*a disease of the heart, consisting of an enlargement of that organ to a considerable extent, with inordinate pulsation throughout the whole of the left side, and dropsical effusion in both sides of the chest, in the abdomen, and in the cellular membrane generally.*”

After having tried some of the more common remedies, without effect, Leroux and Dupuytren ordered the powder of digitalis in doses of three or four grains daily, together with a liniment, in which the tincture of digitalis predominated. By these means the symptoms were very speedily dissipated, and the little invalid was restored to a considerable share of health, in the course of a month. But, soon afterwards, he began to experience palpitations, cough, and wandering pains in various parts of the body. For the three next years the youth was valetudinary, and unable to take the exercise or undergo the scholastic discipline of his equals in years.

On the 1st May, 1825, the young Baron was invited to a royal fête, and made rather too free with the sweet-meats and wine, for which he soon began to pay dearly. On the 5th of the same month our author saw him for the first time. The pulse was 130 in the minute—the pulsations of the heart were in correspondence, and shook the whole of the left side of the chest. On percussion, the chest sounded pretty well, except in the region of the heart, where there was a considerable projection of the ribs to the extent of six lines at least, and for a space of four inches in breadth. He had hard, dry cough;—the face was *pale*, and the countenance indicative of much suffering. Excepting the paleness of the face, the other symptoms led to the belief that there was an aneurismal affection of the left ventricle of the heart. The exception above-mentioned induced our author to conclude that the disease was a simple hypertrophy of the organ, carried to its highest degree, and which, though less dangerous than aneurismal dilatation of the left ventricle, was yet a formidable complaint, which must ultimately prove fatal.—Half a grain of the powder of digitalis was at first prescribed daily, to be daily increased, enjoying the most perfect quietude of body and mind, with the lowest possible scale of diet. 8th, The boy was better, and his nights more tranquil. He could lie down in bed—his pulse was reduced to 60 in the minute—the elevation of the ribs was much less prominent—the boy wished to go out into the garden to amuse himself, and had a return of appetite. Our author felt quite astonished and well he might, at this sudden change for the better; especially as the dose of digitalis had only yet amounted to three grains *per diem*. We forgot to mention, however, that hot pediluvia, with mustard, had been employed in the mean time, and that great importance was attributed by M. Comte to this remedy. We cannot well comprehend our author's pathology, as exemplified in the following passage.

“ La prompté disparition de ces derniers symptomes, et la suite de cette observation donneront une juste idée de cette espèce d'hypertrophie du cœur, qui n'était qu'un *boursoufflement spasmodique*, une exaltation accidentale de cet organe, plutôt qu'un surcroît réel de volume, avec lésion organique.”

A Spasmodic Swelling or Puffiness of the Heart! Really this reminds us of Oliver Hill's fifth Essay on the Circulation of the Blood, or rather *against* the circulation, shewing that the true cause of the motion of the heart, of the blood, and of the arteries, is—“ *The spirits making a FLASH in the left ventricle, and a PUFF, which swells the heart at every pulsation, and pervades and moves the blood.*”*

Be this as it may, the jeune garçon—we beg pardon, le jeune Baron, recovered rapidly, under the digitalis plan, and by the 15th his mother considered him “comme guéri d'une affection très-grave,” of which her other son had died. But these halcyon days did not last long. On the 18th of the same month, the fond mother took the recovered son to the representation of Jocko—by which he was amazingly amused and excited—but by which the mother averred he was by no means injured. On the 20th, however, our author found the young Baron as bad as ever, and, therefore, prescribed the digitalis and quietude, with low living, as before. The patient continued very ill till the 25th, when the symptoms were rather mitigated. Still there was great uneasiness and anxiety in the region of the heart, and excessive nervous irritability throughout the whole system. This state changed into one of great debility, with much tendency to somnolency and affection of the brain. Upon this supervened a high state of gastric irritation, if not inflammation, requiring leeches to the epigastrium. The projection of the chest, in the region of the heart, now almost disappeared, and the youth began to sit up a little and even attempt to walk, but without the power. At this time, viz. on the 29th, M. Laennec was requested to examine the boy's chest, and noted the following diagnosis:—“every part of the chest, *except the præcordial region*, renders the natural sound—in the latter it is doubtful, on account of the distention of the stomach by gas. Respiration natural throughout the chest—movements and noise of the heart nearly natural. *Diagnosis.*—Pericarditis ending by resolution.” He prescribed antimony, digitalis, occasional leeching. He considered the palpitations and irregular action of the heart as owing to “a violent spasm settled on that organ.” M. Comte did not, however, agree with M. Laennec as to the existence of pericarditis. Between the 1st and the 4th of June, the little patient suffered very much, without any evident cause, from oppression and fixed pain in the region of the heart. But our author, on seeing the boy pale, feeble, and dejected, with quick, soft pulse, considered the pain as spasmodic, and ordered *semicupia*, which had the desired effect. The digitalis was still continued. But we must bring this tremendous long case to a close. The boy sometimes rallied, and at others, was so near death, that the priest superseded the doctor, for the purpose of applying extreme unction.

*-Hill on the Circulation, 8vo. London, 1700.

At one time too, another eminent physician was called in to consult with M. Comte, and pronounced the disease to be an aneurism of the heart, and that the young Baron had but a few days, perhaps only a few hours, to live. This prognosis was not verified; for the parents took the child down into Normandy, and returned several months afterwards with the invalid in a much better condition than when he left Paris. The action of the heart is still high, and we have much doubt whether the youth will not ultimately fall a victim to organic disease. This, however, is not the opinion of his physician, and he must be the best judge. The young Baron is safe for the present—and we have in him a good specimen of what the nervous system is capable of doing, and how dangerous it is to pronounce a *disorder* of the heart's action to be a disease of its structure.

XI.

ANALECTA MINORA,

OR

MINOR PERISCOPE.

Nihil est aliud magnum quam multa minuta.

1. *Sulphate of Cinchonine.* It is known that the pale bark, or *cinchona officinalis*, yields a great deal of cinchonine and very little quinine.—The red bark, or *cinchona oblongifolia*, yields about equal parts of quinine and cinchonine—while the yellow bark, or *cinch. cordif.* yields a great deal of quinine and very little cinchonine.—Now, the immense demand which, of late years, has been made for quinine, has naturally produced both a scarcity and dearness of the yellow bark from which it is obtained, and this circumstance will infallibly lead to adulteration and deterioration of the medicine. It is, therefore, very desirable that trials should be made of the cinchonine, procurable from the other and less costly species of bark. M. Bailly has lately made a considerable number of experiments in the treatment of intermittent fevers, at La Pitié, on the febrifuge powers of the cinchonine and the results are favourable. The doses were generally from 12 to 16 grains of the medicine in the apyretic interval, and the paroxysms were soon brought to an end. Although the cinchonine may be inferior to the quinine, yet it would be very desirable to introduce the former into practice on many accounts.

2. *Rupture of the Spleen.* M. Bailly, who has written a very interesting work on the intermittent and remittent fevers of Italy, and particularly those of the Campagna di Roma, informs us that rupture of the spleen is a very common occurrence in these fatal fevers. He has published several cases of the kind in a late number of the *Révue Médicale*. He also found the liver very often gorged with black blood, and its structure broken down and reduced to a kind of putrid jelly. These effects of the violent orgasms of the circulation in fever, he attributes very properly to sanguineous congestion, and does not look upon them as at all the causes but the consequences of the fever.

3. *Hydriodate of Potash.* M. Lisfranc has given the particulars of a remarkable case of scrofulous enlargement of the female mamma, which resisted all the usual means of resolution, but ultimately gave way to frictions with the iodine ointment.

4. *Variolous Pustules.* A good deal of discussion has lately taken place in France relative to the power of caustic in preventing the formation of pustules and the disfiguring cicatrices so often left after severe small-pox. Messrs. Velpeau and Bretonneau have strongly advocated the measure; but, it is always best to wait till others, besides the original discoverers, have tried the efficacy of any new procedure, before we place much confidence in their statements. It now appears that considerable abatement must be made from the good effects of cauterization, as first proclaimed by the authors above-mentioned. Dr. Meyraux gave the measure a trial in the Hôpital de la Pitié, and reports that if the variolous pustules are opened with a lancet and touched with a pointed piece of lunar caustic, *on the first or second day of their appearance*, they will be annihilated, and no marks will be left—but, on the third day, it will be quite useless.—This is but small encouragement—yet it is more than was admitted during the discussions in the Institute, where it was “the opinion of several medical men who had tried the measure, that cauterization was useless in the distinct, and prejudicial in the confluent small-pox.”—*Bulletin Univers.*

5. *Cæsarian Section.* Dr. Vonderfuhr, of Dahlen was called to a woman, in her first child-bed on the 28th April, 1823, whom he found feeble, emaciated, and rachitic. She was 31 years of age, and had been three days in labour, the waters having been discharged the preceding day. The malformation of the pelvis was evident, the pubes being strongly pressed inwards, and the conjugate diameter not quite two inches. The head of the child was closely impacted—the labour pains severe and at short intervals—child alive. The Cæsarian section was proposed and assented to. The operation was performed, with the assistance of Dr. Kopstadt and Mr. Buckling. The linea alba was the part selected for the incision, which was carried from near the umbilicus to within an inch of the pubes. The uterus being laid bare, was also opened to the extent of five or six inches. The foetus was extracted with some difficulty. No hæmorrhage ensued. The placenta was extracted next, and the uterus contracted immediately. The patient never uttered a syllable during the whole operation! Sutures and adhesive straps were applied. On the 5th day the operator found the patient remarkably well—free from fever—lochia discharging per vaginam—and milk in the breasts. On the 8th day the wound, excepting a very small portion, was united. She perfectly recovered without a bad symptom. She brought up her infant safely. It is supposed, and not without reason, that much of the success of this terrible operation was owing to the tranquillity of mind and philosophic heroism of the patient. It is, indeed, astonishing with what firmness the softer sex bear the most painful operations. They certainly have more real practical philosophy than boasted man, and deserve a better fate than Providence has allotted them in this world.

6. *Diseased Peritoneum.* Dr. Crowther has lately related an interesting case of this kind in our Northern cotemporary. The patient was a young lady, aged 30, who, having been seized in December, 1823, with febrile symptoms, sickness, and pain in the lower part of the abdomen, was apparently cured by common means. But, in March following, she was found to be considerably emaciated, with dry skin, quick pulse, distention and pain

in the abdomen. Fluctuation was evident there. Diuretics and mercurials produced no benefit. In April, 1824, when Dr. C. saw her, she appeared to have common ascites, and the usual remedies were prescribed without effect. She continued to increase in size, and was tapped in August, but only two quarts of a fluid resembling water-gruel were discharged. In another attempt, about four quarts were evacuated from a puncture in the linea alba. Hardness and inequality were now perceptible in the right side of the abdomen and the body was fast extenuating. She lingered in great distress till October, when she died.

Dissection. The trochar was pushed, with much difficulty, into different parts of the abdomen, and about half a gallon of thick fluid flowed out. The parietes were then dissected back, and the peritoneum laid bare. It was from one to two inches and a half in thickness, and white throughout, consisting of firmly condensed cellular membrane. "A heterogeneous mass presented itself, containing cysts of various forms and sizes, some round, some oval, some transparent, some opaque, some capable of containing two quarts, others not half an ounce. The transparent cysts contained a thick, transparent, spongy, gelatinous fluid—the white cysts contained a white fluid, of the consistence of thick cream—the coats of some of the larger cysts were very thick and opaque—there likewise existed a quantity of empty cysts, and flakes of coagulated lymph. The whole had the appearance of an immense quantity of purulent matter, floating amidst the hydatid cysts between the laminæ of the peritoneum, and amounting to six or seven gallons." There was no adhesion between the peritoneum and the abdominal viscera, nor was any fluid found in the general cavity of the abdomen.

This was evidently a case of hydatid or tubercular disease, of which Dr. Baron has given the best description of any writer with which we are acquainted. We have at this moment a melancholy case of the kind under our care, in the person of an accomplished young lady from Scotland. The abdomen is enlarging, and partial fluctuation is perceptible. The rest of the body is gradually wasting away—and the sense of distention, especially after eating, is very distressing. Death will, no doubt, close the scene. Repeated leeching is the only measure which gives a temporary relief.

7. *Poisoning by Tartar-emetic.* Dr. Sauveton of Lyons, has lately published a case of this kind, where a lady swallowed, in a mistake, about a drachm of tartarized antimony dissolved in whey. In ten minutes after the accident, M. Sauveton was on the spot, and promptly exhibited about two ounces of tincture of yellow bark diluted in several glasses of cold water. The bad effects of the poison were almost entirely prevented, being limited to some nausea and epigastric pain, the latter continuing more or less for four or five weeks. He would advise the bark in substance to be given in such accidents in future, but we do not see any good reason for this preference—and the bulky nature of the powder would be more likely to increase the vomiting.

8. *Secale Cornutum.* Mr. Clark, surgeon, in Bristol, has related three cases of tardy labour and deficient pains where a scruple of the powdered ergot of rye brought on quick delivery. In one case only out of three, was the child dead.—*Med. and Phys. Journal, January.*

9. *Retention of Urine.* It would appear that surgery has come to such a pitch of perfection, that surgeons will be put to their wit's ends to invent difficulties. M. Brander seems to have set the example in the Quixotic

path. In cases of retention of urine, when all other means fail, and an operation is indispensable, he proposes to *bore* the symphysis pubis, and come to the bladder in that direction, rather than above the pubes or through the rectum or perineum ! If this be not making difficulties where there are none, we know not what is. In puncturing the bladder above the pubes there is neither danger nor difficulty, and we would recommend this operation in preference to all others.—*N. Biblioth. Dec.*

10. *Local Spontaneous Combustion.* We confess that we have always been sceptical as to the alledged phenomenon of spontaneous combustion. Nor does the following case diminish our scepticism. It is related in Hecker's Annals for 1825, volume the second. A young woman, while working at her needle, on the evening of January 21st, 1825, perceived a sudden and extraordinary heat pervade her whole body, and at the same time a violent burning sensation in the fore finger of her left hand, which became *encircled with a blue flame*, to the extent of an inch and a half, emitting a sulphureous smell. *Affusions of cold water and a wetted napkin had no effect in extinguishing the flame.* The whole hand was then immersed in water, but, like the famous Greek fire, nothing could put it out. The young woman ran home, in doing which the flame communicated with her clothes. When she got home she kept applying milk to the hand during the whole of the night, and at length succeeded in extinguishing this mysterious combustion. On the 25th, she was brought to the general hospital of Hamburgh, when the finger and wrist were found covered with small blisters, such as take place in burns or scalds. The patient had intense thirst, and head-ache, but no other febrile or morbid symptoms. We need not pursue the details of this case. She was not discharged till the 5th May, having, during the greater part of this long sojourn, been afflicted with burning sensation in the hand, and startings (*tressaillemens*) in different parts of the body. We cannot doubt the occurrences which took place in hospital ; but, till the combustion-scene is authenticated by better testimony than this young woman's ipse dixit, we shall beg leave to withhold our belief in the truth of her assertions.

11. *Antiphlogistic Treatment of Cancer.* Mons. Puel, chief surgeon of the Civil Hospital of Figeac, had long been in the habit of treating, and, according to the documents published by his son, of *curing* cancer of the mamma and other parts, by starvation and bleeding, more especially local bleeding. The practice is not new, as every body knows—but still, it may be useful, though long neglected. When Dr. Barry shewed that cupping-glasses applied to a poisoned wound completely arrested the progress of the poison into the circulation, and secured the animal from certain death, it was immediately discovered that Celsus had recommended the same measure in poisoned wounds, and especially in those occasioned by the bite of a rabid animal. Yet, the recommendation of Celsus was a dead letter, to all intents and purposes, and, therefore, Dr. Barry is just as much entitled to the merit of the discovery as if Celsus had never put pen to paper. It is well known that Fearon, in this country, some 20 years ago, maintained that cancer was always an inflammatory affection, and that its only remedy was to be sought in repeated leechings, and the other antiphlogistic measures. Every well-informed surgeon, indeed, knows that the growth of cancerous, or rather of scirrhus tumours, is connected with, if not dependent on, an inflammatory or turgescient state of the vessels of the part, and, therefore, endeavours to check their growth by local depletion. But then, it must be *recollected*, that there is such a thing as a morbid *deposition* or change of

structure, which is to be removed, and consequently absorption is to be promoted, while nutrition is to be retarded. This important process seems to have been over-looked both by Mr. Fearon, and M. Puel. In all tumours of the female mamma, and, indeed, we might say in all tumours, where there is pain, throbbing, or heat, leeches should be applied every three or four days, till the tenderness subsides, and then friction, with mild mercurial or iodine ointment should be alternated with the local depletion. This, with low diet and antimonials internally, will check or remove tumours if any thing will. Nine cases are related by the younger Puel, where the depletive practice was successful in the hands of his father, not only in scirrhus but in open cancer. These cases are detailed in the *Archives* for October, 1825.

12. *Emphysema Post Partum*.* A woman, aged 25, was taken in labour in the evening of April 4, and the parts being very rigid, blood was taken from the arm several times, between that and the 7th, when she was delivered of a still-born child. Immediately after delivery, a violent paroxysm of coughing came on, which threatened suffocation. At noon of the same day, about ten hours after this paroxysm, her face and neck were observed to be much swelled, the swelling diffusing itself over the trunk of the body, and causing great alarm in the minds of the friends. A sensible crepitus was distinct in the parts. The cough was still troublesome, and the breathing was somewhat oppressed. Some aperient and antimonial medicines were given, and in three days the swelling, crepitus, and cough had almost ceased. From this time she had no relapse.

13. *Remarkable Disease of the Bladder*.† A youth, aged 18 years, had enjoyed excellent health till the autumn of 1822, at which time he was seized suddenly with incontinence of urine, without any ostensible cause. This symptom disappeared in a few days, leaving much pain in the region of the bladder, with a constant desire to make water. In a short time after this, complete ischuria took place, but soon went off, after the discharge of a fleshy substance *per urethram*. A temporary respite from suffering succeeded this last event; but other morbid phenomena soon took place, and the patient was worn out by a series of tormenting afflictions.

Dissection. A great quantity of purulent matter was found in the cavity of the abdomen, and an encephaloid mass, the size of a pigeon's egg, adhering, on one side, to the pubis, and on the other, to the bladder, the coats of which were converted into a similar morbid growth, with numerous small fungous bodies on its interior surface. The coats of the bladder generally were thickened, and the orifice of one of the ureters obliterated. That ureter was distended to the size of the intestinal canal.

* Cases of emphysema from an internal cause, are rare. There are a few on record, however, where the violent straining during parturition, whether the woman screams aloud or suppresses the language of complaint, has ruptured some of the air-cells and lining membrane of the lungs, and thus permitted the escape of air into the cellular substance of the body. This kind of emphysema has always proved a mild and tractable disease, and gives way to moderate evacuations.

† Dr. Paderborn. *Rheno-Westphalian Annals of Medicine and Surgery*, 1825.

14. In the *Journal Universel des Sciences Medicales* for November last, Dr. François Prosper Ravin, has offered some observations on the papillæ of the tongue, and on the symptomatology of this organ.

He differs from those anatomists who admit three orders of papillæ, and agrees with Heister in uniting the lenticulares and fungiformes under one head. He remarks, that with the exception of Winslow and Senac, most authors have erred in limiting these papillæ to the posterior part of the tongue, when in fact they are to be found in every part of its upper surface. They present, as Ruysch has stated, numerous small excretory apertures. They are placed symmetrically amongst the conical papillæ, but are fewest about the median line, and most conspicuous towards the sides. They are smaller, and situated with less regularity, but more thickly, towards the tip, where they are at least as numerous as the conical.

To the conical papillæ belongs all that part of the surface of the tongue, which is not occupied by the former kind. These papillæ are most numerous towards the raphe. For the most part they are conical and acute, but some along the sides of the tongue are flattened. A few terminate by a simple orifice for the escape of the fluid which they secrete, but the greater number end in short and slender filiform tubes, which Verheyen and Ravin have occasionally found double.

Dr. Ravin considers the first order of papillæ, viz. the lenticular and fungiform, as destined to secrete a fluid having the properties of saliva. To the conical he attributes the production of mucus. He conceives that the sympathies of these two orders of papillæ must be different, and he suggests that the knowledge of their peculiarities, would be an important assistance in diagnosis.

The conical papillæ often feel the influence of a slight gastro-intestinal, or bronchial irritation, and become concealed under a white fur, while the lenticular, whose secretion is uninterrupted, remain clean and conspicuous. These last, the author considers as more particularly affected by the state of the nerves. Hence, when the disorder is severe, when the nervous irritation and suffering are great, or when the membranes of the brain, and particularly the arachnoid about the origins of the nerves is affected, the lenticular papillæ either become red, or swollen, or their secretion is suspended. This influence first becomes visible towards the point of the tongue, where the nerves are most thickly distributed, and extends backwards in proportion to the intensity of the cause.

15. Dr. Regnoli of Forli, relates a case, in which a fungoid affection of the maxillæ and gums was successfully treated by the removal of the alveolar processes of both jaws. The patient, a woman thirty-five years of age, had had carious teeth from her infancy, and was almost constantly tormented with severe tooth-ache. She was besides subject to frequent erysipelas of the head and neck.

Towards the close of 1824, she discovered a small tumour behind the last molar tooth of the lower jaw on the right side. It soon ulcerated, and rapidly spread to the gums and alveoli of both jaws. These parts were much swollen, and considerably contracted the cavity of the mouth. The fungoid excrescences poured out blood on the slightest touch, and continually produced a thin and fetid discharge. The deformity was considerable, and the voice was altered. The limits of the disease were well defined, and the lymphatic system did not appear to be affected, but the patient experienced much pain, her countenance was dull and cachectic, she lost flesh, and had febrile exacerbations in the evening. In this state of things, the patient was admitted into the hospital at Pesaro, where after

having first performed the operation on the dead subject, Dr. Regnoli removed the teeth and alveolar processes of both jaws, with the exception of the last molar tooth on the left side of the lower jaw, the socket of which appeared to be sound. From the situation of the parts the saw could hardly be employed, hence it was merely used to form a shallow groove in the most prominent parts of the bone, the separation of which was effected by means of a chissel and mallet. Actual cautery was applied to the bleeding vessels, and to such suspicious parts as were not accessible to the knife. The lips of the external wound were brought together by three gold needles and the twisted suture.

The first day after the operation, the patient referred her pain to the throat, rather than to the parts which had been operated upon. She had severe headache, which was attributed in part to the shock given to the head by the strokes of the mallet, and to the division of the dental nerves. The needles were removed on the fifth day. On the fifteenth, seventeenth, and eighteenth, some portions of exfoliated bone were detached—on the nineteenth, the lips could be closed for the first time. By the twenty-third all tumefaction had subsided, the voice was improved, the catamenia, which had long been absent, had re-appeared, and the other functions were in a natural state. On the thirtieth the sole remaining tooth was removed, as it interfered with mastication. Five days later, she left the hospital in good health. The lips fell in a little, especially the lower, but the deformity was very slight. The voice, which had not quite recovered itself, was daily improving.

Dr. Regnoli concludes, that though the disease should return, the operation was still proper and necessary. Without it, he considers that death would have been inevitable, and he urges in its favour—that it incurred but little danger—that the practice of Dupuytren and Vacca support it—and that the disease does not always return.

16. *Leeches*. Dr. Pallas of the Military Hospital of Pampeluna, has made some experiments on the management of leeches, in order to render them serviceable for repeated applications.

When the rejection of the blood which these animals had drawn was procured by placing them on (wood?) ashes, a considerable majority were serviceable a second, and even a third time. But salt, ashes, tobacco, or other irritating substances which often seem to injure the leeches are by no means necessary to make them part with the blood which they may have taken. They will do this spontaneously, if they have the means of retiring and burying themselves in moist light earth. Dr. Pallas contrived a small tank, at the bottom of which was a perforated plate, allowing the escape of foul water but not of leeches. Within the tank an enclosure was formed with pieces of turf, and between this and the sides of the tank an interval of several inches was left all round. This was filled up with alternate layers of common mould, and clay. The tank was half filled with water, and several hundred leeches, which had already sucked, were placed in it. They put themselves into considerable agitation, became elongated, and discharged a portion of the blood, which they had taken, after which they made their way between the pieces of turf. A few sickly ones were the last to do so. In about a week eight died, but no living leeches remained in the water. Care was taken daily to water the earth, as well to keep it moist, as to wash out the blood which the leeches might have deposited in it. After fifteen days the tank was examined. The greater number of the leeches were found at the lower part, between the turf and the earth. They were motionless, contracted and short, resembling olives in form. They were surrounded by a thick coat of viscid matter, and the earth about them

was soiled, shewing the necessity of frequent watering to prevent putrefaction, by which the leeches would be destroyed. Sixty of these leeches were taken out, washed, placed in clear water for a day, and then very efficiently employed in the service of the hospital.

17. *Ictus Solaris*. Mr. Brown, Surgeon of the 2d Dragoon Guards, has related an interesting case of this affection, which took place during the hot weather of August last, in the person of a farrier of the regiment—who, having been drinking freely, had run about in the sun, with his head uncovered, in the midst of which exercise he dropped down suddenly, as if he had been shot. Mr. Brown found him extended, senseless, and motionless—his breathing free and natural—skin hot—countenance flushed—vessels of the eye turgid—pupils dilated, and iris not obedient to the light—pulse very full and firm, but not rapid—jaws clenched—feces and urine passing involuntarily. There was no time to be lost. Large detractions of blood were made from the arm, temporal artery, and jugular vein, aided by saline glysters, refrigerants, and cool air, with shower-bath every four hours. He lost, in the commencement, 112 ounces of blood—but it was five or six days before any thing more than a very slight amendment could be perceived. At that period, he began to shew signs of sensibility and consciousness of surrounding objects. On recovering a little farther, it was found that he had complete hemiplegia of the left side. In about six weeks he was able to join his regiment, and attend to his duty, the hemiplegia having almost entirely disappeared.

In this case it is evident that apoplectic fulness of the vessels must have first obtained, and that some effusion—probably of very trifling extent, took place in the right side of the brain.

Rheumatism. The dragoons are more subject to this distressing disease than the foot soldiers. The greater number of cases, in Mr. Brown's practice, were without febrile excitement. External applications were of little avail. As an internal medicine, the colchicum, in increasing doses, had a decided superiority over others. "But where there was no apparent phlogistic diathesis present, I have lately found that mercurial vapour, applied to the whole surface night and morning, until a slight action is perceptible, has an unequivocal advantage over every other remedy I have yet tried—giving tone and activity to the circulation, requiring no muscular exertion in its use, being cleanly and safe in its application."

Extensive Thoracic Disease. Mr. Brown has given this case of the late quarter-master of the Bays, who appears to have been early afflicted with rheumatism, but, for the last 7 years with gout, which came on in regular autumnal attacks. In October, 1823, a fit was repelled by some nostrum, and was succeeded by pain in the præcordia and stomach, the lungs and heart participating. This retrocession required active bleeding, warm baths, blisters, opiates, and antispasmodics, for the space of six days. The prominent symptoms were subdued, but severe effects remained. In the autumn of 1824, he was noted in Mr. Brown's Journal, as affected with constant cough—copious expectoration—suffocating respiration—inability to lie down—full pulse, with intermissions—vertigo, palpitation—great dyspnoea on going up stairs—constant pain in the left breast, with a frequent painful constriction across the whole chest, extending around each deltoid muscle. The action of the heart was visibly laborious, extending over a space of six or seven inches in diameter; the whole arterial system vibrating in consonance with the central organ. In this state, more or less aggravated,

he continued until May 1825, when he died suddenly, after shaving and dressing himself.

Dissection. The left side of the thorax was emphysematous, the muscles flabby and easily lacerable, and the ribs soft. Extensive adhesions obtained between the lungs and the pleura costalis—the lungs themselves were hepatised in some places, and generally studded with tubercles. The heart was enormously enlarged, flabby, and covered with fat—six ounces of serum in the cavity of the pericardium—the parietes of the right chambers were, in some places, so thin, as to be nearly transparent—the pericardium itself diseased, and various other morbid appearances in the chest. The coats of the stomach were thickened, and the internal surface of a chocolate colour.—*Med. and Phys. Journal, March, 1826.*

The above specimen of thoracic, and especially of cardiac disease, is now familiar to almost every attentive observer, as resulting from the *extension*, as well as *metastasis*, of rheumatism from external to internal parts.

18. *Black Drop.* Any man of leisure, and of even very moderate research, might furnish the public with a series of papers, (having for their motto, "*sum cuique*," and their *object*, that which is conveyed in those two significant words) which would be of real utility—and moreover extremely amusing. It is not in our power to undertake this measure, in its full extent—but we invite communications on this subject—and, in the next Number of this Journal, a series of *retrospections* will be commenced, which will probably be of some interest.

At present we shall only advert to a medicine which is unquestionably of very great importance, and the real composition of which is yet a secret. Public attention was drawn to the Black, or Lancaster Drop, about ten years ago, by Dr. Armstrong, who published the formula in the first edition of his valuable work on typhus fever. It is certain, however, that full 21 years ago, two formulæ were given to the public by a Dr. James Cassels of Lancaster—one corresponding with that of Dr. Armstrong, and the other as follows:—"take of purified opium five ounces—pimento and cinnamon of each two drachms—saffron and seville orange peel, of each one drachm—rectified spirit of wine a pint. Digest with a gentle heat for a week, and strain the liquor through flannel with a screw-press; then add two or three ounces of sugar-candy."

A friend of ours made the Black Drop according to the other prescription (with the verjuice) but it did not correspond in colour, taste, or property, with that which is sold as a secret preparation. We would therefore recommend a trial of the last-mentioned formula, as a succedaneum for a very expensive, but very valuable medicine.

It is a fact that neither the one nor the other formula is original; for Dr. Jones, in his "*Mysteries of Opium revealed*," published nearly one hundred and thirty years ago, makes mention of a preparation of opium similar to Dr. Armstrong's receipt, under the title of "*Laudanum Liquidum Cydoneatum*." Quincy, in his Dispensatory, published in 1722, takes notice of this formula, and gives others for making laudanum with spices and aromatics, similar to the form which we now republish.

19. *Antimoniated Ointment.* This application is now becoming very general, as a counter-irritant, and we believe (with Dr. Fulton, of Leamington, who writes to us on the subject,) that the formula first given by Dr. Jenner, is the best. It is as follows: ung. catacei ʒix. ant. tart. ʒij. sacchari albi ʒj. hyd. sulph. rub. gr. v. M ft. unguentum. Of late we have found a plaister much more convenient and speedy in its operation. Thus,

a drachm of tartarized antimony incorporated with two drachms of common cerate, and spread on lint, will produce pimples in 24 or 36 hours. Or the irritant may be incorporated with Burgundy pitch or other plaister, in any proportion the practitioner pleases, adapted to the urgency of the case. There is no trouble to the patient, and he knows nothing of what is going on till the eruption begins to come out. He then complains lustily; but generally acknowledges that the plaister has relieved the internal pain or other affection.

20. *Perforated Intestine—Artificial Anus cured.* A farmer, aged 40 years, of strong constitution, complained of most violent pains in the abdomen, accompanied by vomiting. His groins were examined, and in the left, was found a small tumour, which had made its appearance there suddenly while carrying a heavy burthen some time previously. This swelling had given no inconvenience till the present time. The physician, not being able to reduce the swelling, contented himself with ordering some enemata, diluent drink, and a cataplasim to the part. *Second day.* Same symptoms. *Third day.* The symptoms were exasperated. There were hiccup—vomiting—extreme tenderness of the tumour—distention of the abdomen—feeble pulse. Not doubting that the case was a strangulated hernia, a surgeon was sent for. The fourth and fifth days were passed in a sad state, as no surgeon could be found to operate. On the *sixth day*, the physician was suddenly called, and found the swelling just bursting, and discharging a quantity of thick white pus. *Seventh day.* The patient is doing well—much suppuration—in the interior of the abscess could be seen a portion of epiploon half mortified. This was cut away, and a portion of intestine was found adherent to the edge of the wound. The bad symptoms again returned with full force—and on the 9th day a living lumbricus, six inches in length, presented itself at the wound, and was drawn out by the forceps. *10th and 11th days.* Nothing particular occurred. *12th day.* The patient complained of violent colicky pains, and on removing the dressings, excrementitious matters issued forth, together with another lumbricus of the same size as the first. *13th.* Abundant stools were this day procured by some castor oil, and a great amelioration of the symptoms succeeded. Fæces continued to be discharged from the wound, which had now considerably increased in size. From the *13th till the 16th day*, the patient experienced no other inconvenience than the constant passage of fæcal matters by the wound. Our author then had recourse to the plan of Desault, and placed a pad of charpee on the part, supported by an elastic bandage. No inconvenience followed. and two days afterwards, motions were passed per anum. From this time granulations went on forming in the wound, till it was entirely cicatrised, and the man was able to return to his usual avocations.

The question is, had the worms any part in the breach of structure in the intestine? We think it improbable, though not impossible. The delay of the operation, in this case, as in one recorded in our last Number, is not creditable to French surgery, in the provinces; because it is well known that the French physician receives the same professional education as the surgeon, and *vice versa*. The same should be the case, indeed, every where. —*Revue Med.* Jan. 1826.

21. *Sudden Congestion and Death.* A man (Martineau) 42 years of age, of robust constitution and sanguineous temperament, was received into the MAISON DE SANTÉ, of Charenton, on the 14th January, after having had several accessions of erotomania. These accessions came on once a month, and lasted a fortnight. In these attacks he became greatly agitated—talked

incessantly—slept scarcely any—and ate very little. In the intervals he was tranquil; but his intellectual faculties were little developed. In this state he had continued a great many years. His physical health appeared perfectly good. On the 23d of June, two hours after breakfast, he walked out in the garden, the weather being beautiful, and the sun not too powerful. All at once he fell to the ground, insensible and motionless. He was raised up, and soon revived so far as to be able to walk for some minutes, when he again fell down, and never breathed or moved afterwards.

Dissection. The vessels of the brain and its membranes were more injected than natural; but there was no other appearance of disease throughout the encephalon. “The two lungs were gorged throughout with black and fluid blood.” There was no other morbid appearance in any part of the body.

Remarks. The pulmonary congestion was not announced by any premonitory symptom. But Martineau had this time passed the usual period of his monthly attack of mania, and the author (M. Leuret) thinks that the congestion which periodically fell on the brain, producing the maniacal paroxysm, took the direction of the lungs this time, and caused instant death.—*Journ. General, Janvier.*

We believe that it is better to be in ignorance than in error. In the former case, our mind is open to truth when it presents itself—in the latter, it is too often secure in its false position, and seeks not to move from thence. We are doubtful whether death, in the above instance, was owing to the pulmonary congestion found after death. The patient fell down apparently dead a few minutes before, and soon recovered so as to walk about again. Could the pulmonary congestion have *then* obtained, and so suddenly vanished? The thing is next to impossible. And if so, why might not the same cause, whatever it was, which produced the first loss of sense and motion, produce also the second attack, which ended in death? We are more inclined to look to the sensorium for this sudden extinction of the vital functions than to the lungs. True it is, there was only a slight injection of vessels found in the brain; but this is no proof that great lesion of the sensorial functions had not previously taken place. We see that, for a great many years, there was a regular monthly attack of mania, lasting for thirteen or fourteen days each paroxysm, and, after all, leaving no trace of organic disease or alteration of structure in any part of the encephalon, or its membranes. Why then should not this disturbance of function rise to a height incompatible with life, and leave nothing more than a little fullness of vessels—nay, not even so much as that? The case is instructive in respect to the pathology of insanity—proving that aberration of intellect may take place for years, without appreciable alteration of structure in the seat of thought. Hence we have every reason to conclude, that those organic changes, which we find in the heads of maniacs, are more frequently the effects than the causes of deranged sensorial functions. This reasoning, indeed, will apply to most of the diseases of the body as well as those of the mind.

22. *Curious Case of Stricture of the Œsophagus.* M. De C. a Knight of St. Louis, was expatriated from his country in the revolution, and endured with fortitude the greatest hardships in a foreign land: yet he maintained excellent health till an advanced age, and in his 74th year travelled from Bourdeaux to Paris on foot. From his infancy, he had a difficulty of swallowing solid food, though this inconvenience appeared to produce no disorder of the digestive or other functions. In his 76th year, an attempt was made to supply him with a set of artificial teeth, which did not succeed, and produced inflammation which spread successively to all parts of the alimentary

canal, and during several months he was a prey to vomiting and gastric derangement immediately on taking any food. These symptoms at length became mitigated; and he entered the MAISON DE SANTÉ under M. Dumeril, still preserving a pressing desire for food, but condemned to liquids. Even these he swallowed with difficulty, and with a kind of gurgling noise. Immediately after taking any substance into the pharyngeal cavity, it kept constantly regurgitating into the mouth, accompanied by a great flow of saliva. He was generally obliged to use frictions to the sides of the neck, to facilitate the deglutition. In this way he went on leading a miserable life, and repeatedly imploring that a bougie should be passed down the œsophagus, to try to remove the obstruction. But neither M. Dumeril nor M. Dubois, who was consulted, would make the attempt, a circumstance that surprises us very much. At length he died of the exhaustion.

Dissection. The lower portion of the pharynx presented a very considerable dilatation or pouch, and there was seen a stricture so narrow as scarcely to admit a probe. There was no change of structure in the parietes of the œsophagus constituting the stricture, which appeared to be a simple contraction, not dependent on any organic alteration of parts.

This is certainly a rare disease. Dr. Baillie, however, mentions this kind of stricture of the œsophagus, which he attributes to simple contraction of its muscular fibres. There are also a few others on record. We do not see any reason why the bougie should not have been tried in this case. Surely it might have been at least as serviceable as in an organic stricture.

23. *Melanic Cancer of the Cheek.* M. Lisfranc lately removed, with success for the present, a tumour of this kind, developed in the cheek of an aged person, a native of Belgrade. The tumour had been only a year in forming, and was seated on the buccinator and masseter muscles, extending from the zygomatic arch to the inferior edge of the lower jaw. The skin covering this tumour was of a violet hue, and the submaxillary glands were swelled. It was considerably moveable, but still adherent to the subjacent muscles and other tissues. It occasioned violent and lancinating pains. It was removed by two elliptic incisions, and was found to consist of a substance in cells, as black as ink.

Some days after the operation, both swelling and lancinating pains returned in the part, and here the chief merit of the case lies. Leeches were daily employed, with the greatest perseverance, and at length the whole of the bad symptoms disappeared, the wound healed, and the patient was discharged from LA Pitié cured.

We believe that many relapses of cancer take place from want of attention to the subsequent treatment when an operation is performed. The first dawnings of returning pain should be met by leeches in great number, so as to deprive the parts of that blood from which the morbid process derives the pabulum with which it constructs its baleful work.

24. *Contemporaneous Rubeola and Variola.* Mr. Hunter's dogma has long been proved to have exceptions. It has not often happened, however, that two eruptive diseases, so decisive in their characters as measles and small-pox, are seen progressing together. Mr. Delagarde, of Exeter, has reported an instance of this kind, in the last volume of the Medico-chirurgical Transactions. On the 29th March, Master Brookes, aged four years, fell ill of measles, then prevalent in the city. On the 1st April, the eruption appeared—interspersed on the right cheek with a few minute pimples.

2d, Measles, raspberry-tinted, distinct, and strong. The pimples were more numerous, and on some of them were seen small vesicles. The appearance of the face was inflammatory and singular. 3d, The measles turned. The pulmonary disorder was very slight. 4th, Among the brown marbled spots, frequent after measles, appeared on the breast and arms several pustules, distinct, dimpled, enlarging, having florid bases, and becoming slightly opake. Mr. D. regarded the case as a combination of small-pox and measles, and in this opinion, he was confirmed by that of an experienced medical friend. 5th, Pustules larger—full—completely opaque. 8th, Pustules turning on the face. 10th, Pustules turning on the extremities. 11th, Crusts separating. Mr. D. inoculated a child with matter taken from these pustules, and small-pox followed.

We are utterly at a loss to comprehend the meaning of the passage which follows, and which seems to involve the whole in impenetrable mystification.

“ On the 8th, the day on which the pustules turned, the infant, after a slight indisposition, was covered with the rubeolar eruption. On the 15th, having completely recovered from the measles, she became very feverish. Between this and the 20th, she had several convulsions. On that day small-pox appeared. The infant not having been near any other child with that disorder, it is thus proved, not only that the eruption was variolous, but that the fever was infectious.” 168.

25. *Doses of Calomel in Days of Yore.* In the seventh volume of Haller's Dissertations, the curious reader will find an important paper on the use of calomel in various diseases, by Michaelis Alberti, in which he gives a learned history of this potent medicine, from the Arabian physicians down to Paracelsus, and thence to his own time, 1745. In this dissertation it will be seen that Helwichius gave calomel in doses of five scruples to two patients. To a third he gave 72 grains, which affected the mouth for a fortnight. Neuterus gave calomel, at first, in the dose of 15 grains, second dose a scruple, third dose, half a drachm—fourth dose, a drachm, at which dose he continued till ptyalism was raised. The intervals between the doses are not mentioned. Medelius advises the dose of calomel not to be raised beyond a scruple. From this and many other sources of information it will be seen that there is nothing new under the sun.

26. *Neuralgia of the Scalp cured by Operation.* A sailor, 40 years of age, was received into La Pitié, with a most excruciating complaint in his head, of which he gave the following account: Sometime previously he had been struck on the head by a squib or other fire-work at a public fête, which knocked him down, and burnt the scalp, on the left side of the lamdoidal suture, to the extent of half an inch. This, however, soon healed, and he thought no more of the matter. But, in the course of two months, he began to feel tinnitus in the left ear, wavering sight, and ultimately the most excruciating cephalalgia, the pain rising from the back part of the head and darting towards the left ear and the forehead. He went into an hospital for the complaint, and various means were tried to relieve him without success. At length he became so distressed with the pain that he determined on suicide. At this time he came under Lisfranc, in La Pitié, who made an attentive examination of the part. When the old cicatrix was pressed, it caused considerable pain, and in this place it was observed that the lamdoidal suture sank in below the level of the surrounding parts, which suggested the idea, at first, that there had been fracture of the skull, with de-

pression. The pain was always greater at night, and the unhappy man never got sleep. He had throbbing pain in the interior of the head, and his eyes would not bear the light. The treatment was commenced with general bleeding, twenty leeches to the part, low diet, &c. and the leeches were frequently repeated. But this plan produced no relief, and M. Lisfranc determined on an operation. An oval piece of scalp, including the seat of pain, three inches in length and two in breadth, was completely removed. Nothing particular could be detected in the vessels or nerves of the portion of scalp cut out. The pericranium underneath appeared sound. The effect was, that the neuralgia never appeared; and, as the man now lives at the hospital, as a nurse, it is ascertained that the cure is permanent.

27. *Distorted Joints after Sprains, &c.* In the Archives for March of the present year, M. Lisfranc has published a short paper and some cases on the subject of certain consequences which follow sprains and other injuries of joints. This accident, says he, on account of its severity, its frequency of occurrence, its tedious cure, and the weakness which succeeds, is highly deserving of the surgeon's attention. By the employment of antiphlogistics, M. Lisfranc has been able to bring these complaints to a speedy termination. This malady, which M. Lisfranc calls "l'entorse," is one in which the articulating surfaces tend to displace each other, whilst the ligaments and other parts surrounding the articulation, are affected with pain and tension. The articulating surfaces themselves, pressed violently against each other, are inflamed. This affection is more common to the adult age and infancy than to any other. It may occur in any of the articulations, and is more common in the ball and socket-joints than surgeons suppose. He gives two cases where the shoulder-joint was affected in this way, and not being recognized, ankylosis took place. The parts where we most commonly observe it are the ankle, wrist, knee, and elbow. He maintains that what is called a "twist in the loins," is no other than this affection. It may be occasioned by whatever external causes tend to displace the articulating surfaces, without being sufficient to produce actual luxation. The pain accompanying this kind of distortion is very violent. It diminishes soon after the accident, but is renewed again as soon as the fluids are drawn to the part by irritation and inflammation. Sometimes blood, and sometimes other fluids are extravasated into the joints, and exasperate the inflammation. The ligaments even are sometimes torn. There is pain and swelling around the joint, and the heat is much increased. The motion of the joint is rendered quite impracticable. Abscesses may form in the neighbourhood of the articulation, and by opening into it cause caries, necrosis, white swelling, &c.

Treatment. If the patient be seen early, recourse should be had to refrigerants and astringents, which should be continued for several hours in succession. The joint should also be covered with leeches—40 or 50 in number. If the patient be robust, general bleeding should be combined. If, on the succeeding day, the inflammatory phenomena continue, the local and general bleeding should be repeated, and also on the third day, though to a less extent. After inflammation is subdued, a circular bandage should be applied, but it should be often examined, as the disease is very prone to relapse. When abscesses form they should be opened early, and the antiphlogistic measures carefully pursued, to quell the chronic inflammation. Stimulating liniments and the moxa are only to be employed when all inflammatory symptoms have subsided. Several cases are related in elucidation, but they are not necessary here.

We need only observe that the above is the plan of treatment pursued by all judicious surgeons in this country, after accidents, whether wounds, bruises, or sprains of joints. Perhaps, however, the local bleeding (from the great expense of leeches in this country) is not carried sufficiently far after sprains ; while liniments of a stimulating nature, together with bandages, are too early applied. Rest and strict antiphlogistic measures are the surest means of obviating the consequences above portrayed.

28. *Infanticide.* Every one is aware of the amount of prejudice which obtains on the Bench, and timidity or doubt in the witness-box, on the subject of tests respecting the viviparous or still-born condition of an infant, whose mother lies under the suspicion of infanticide. We are disposed to agree with some late medico-legal writers, especially Dr. Smith, that the proper tests, when carefully applied, will very generally point out the true state of things. But as, unfortunately, there are exceptions to the general rule, the awful responsibility on the part of the medical witness, and the prejudice which is acknowledged to exist at the Bar, will always lead the physician or surgeon to hesitate in giving a very decided opinion, even when there is little doubt in his own mind respecting the culpability of the mother. We grant that this is not the *beau ideal* of justice, and that it savours more of human frailty than of rigid impartiality in the judgment of right and wrong ; but, as we have often said on former occasions, it is better that ten culprits should escape, than that one innocent person should suffer. If the unnatural mother do elude the vengeance of human laws, she cannot fly from a troubled conscience, more dreadful, because more permanent, than any punishment which an earthly tribunal can inflict.

Dr. Bernt, of Vienna, has lately proposed a new test respecting the vitality of new-born infants. . This professor of medical jurisprudence enjoys the advantage of having the bodies of all the still-born children of the Lying-in-Hospital of Vienna at his disposal, the real state of whom, before death, can always be easily ascertained. We shall give the passage containing Dr. B's. test, in the words of our respected new cotemporary of the North.

“ The circulation of a child undergoes an extensive revolution the moment it breathes, and the placental subsidiary action becomes suspended. The blood, arriving at the liver by the umbilical vein, is withdrawn from that organ, which ought to be rendered so much *lighter* by its abstraction ; and the lungs, by the blood of the ductus arteriosus flowing through them, must have become proportionally heavier. The mere examination of these circumstances, in a new-born child, will go far to determine whether it has breathed ; but the test which he chiefly rests upon, is the appearance and situation of the opening of the *foramen ovale*. *This hole, in a child which has never breathed, is exactly in the bottom of the fossa ovalis ; but, as soon as the child has breathed, the aperture becomes turned towards the right ; in several weeks, it has ascended very high ; and, in the adult age, is found to have arrived at the summit of the oval.* In other words, from the moment respiration commences, the aperture of the foramen ovale begins to travel from the lower extremity of the oval hole towards the upper, proceeding from *left to right* ; and the degree of advance it has made, becomes an index of the existence and duration of the respiratory process.” 462.

The above test is considered as infallible by its author, and sincerely do we wish that it may prove so. On no occasion does a medical witness stand a greater hazard of loss of reputation, with almost certain laceration of feeling, than when giving evidence respecting the crime of infanticide. On this account we shall glance at one other docimasia test to which the Ger-

man professor attaches much importance. This consists essentially in ascertaining the *relative gravity of the lung*. Thus, if the lung of a new-born infant, which generally weighs about an ounce and a half, *sink* in water, he observes how many grains, acting over a pulley, will just raise it to the surface. A lung of the weight above-mentioned may generally be raised by half a drachm. If the lung *swim in water*, he notices how much it takes to sink it. In lungs (if corresponding to the above, they weigh, when inflated, about six scruples more) he notes how many grains are necessary to sink them to the bottom. About 160 grains may be necessary for this purpose. He repeats these experiments with the heart attached to the lungs, and the whole of them a sufficient number of times to ascertain the relative proportion of these in an average way; and we have thus, he thinks, a steady hydrostatic test, sufficient to distinguish the steady relation of the inflated and fully circulating lung, to that which has never been fully permeated either by blood or air. For our own parts we do not see so clearly as the professor appears to do, the application of these last tests to the elucidation of the problem. But such as we have it we give it to our readers.

29. *Colica Pictonum*. A French writer (M. Thomas de trois vevres) has lately published some observations on the seat of this curious disease. It is unquestionable that the sensorium very often presents disturbance of function in this complaint; but then it has usually been considered as symptomatic of the abdominal affection. M. Thomas is of a different opinion, and thinks that, in the majority of cases, the disease commences with cerebral symptoms. In the dissection of eleven cases, he found injection of the meninges, softenings and other morbid appearances in the cerebral structure, with serous or sanguineous extravasations between the membranes. In 275 individuals affected by *metallic emanations*, 92 had not the abdominal affection. This we are ready to grant; but if the disease be confined to the emanations of *lead*, we believe that a small proportion will be deficient of the common enteric phenomena. No doubt the vapours of all metallic substances must act more or less on the brain and nervous system generally, and we need hardly wonder that such appearances as are described by M. Thomas, should be found after death in the cranial cavity. But these circumstances do not, we apprehend, amount to any just reason why we should alter the pathology of colica pictonum, or unhinge our ideas respecting the treatment of the disease.—*Jour. Univers.*

30. *Chloruret of Lime*. We have more than once drawn the attention of our countrymen to this disinfecting agent, which is of very easy formation, being nothing more than a suspension of lime, in water saturated with chlorine. An ounce of this saturated solution is sufficient for a gallon of water, and is employed on the Continent, with great advantage, where bodies are to be handled that are highly putrid, both in judicial and common anatomical proceedings. A curious application of this substance was lately made in France, in the case of a retained placenta, which became very putrid, and disengaged the most disgusting effluvia producing very unpleasant symptoms. M. Delandes threw up injections composed of chloruret of lime in decoction of marsh-mallows, a drachm to a pint. The fetid odour ceased almost entirely on the first application, and was completely subdued by the second. After this the acute pains, with which the patient had been affected, were relieved. The remains of the placenta were not quite expelled till 18 days after the birth of the child; but during its separation the putrefactive smell did not return.—*Rev. Med.*

XII. BIBLIOGRAPHICAL RECORD;

OR,

*Works received for Review between the 15th of March and the
15th of June, 1826.*



1. A Letter addressed to the Medical Profession, on the Encroachments on the Practice of the Surgeon-Apothecary by a New Set of Physicians. By MEDICO-CHIRURGUS. 8vo. sewed, pp. 20. Anderson, London, March, 1826.

☞ See Periscope, page, 209.

2. Transactions of the Medical and Physical Society of Calcutta. Volume the First. 8vo. pp. 410. Calcutta, May, 1825.

☞ Some notice of this interesting stranger will be seen at page 36, This volume contains 33 Articles, besides an Appendix of minor papers and intelligence. Almost the whole of the papers are of interest to the profession in this country, as well as to our brethren in the East.

3. Revue Medicale. Feb. Mars. Avr. Mai.

☞ In Exchange.

4. Philadelphia Journal of the Medical and Physical Sciences, No. 4. New Series, 1826. Conducted by Drs. Chapman, Dewees and Godman.

☞ In Exchange.

5. The Medical Recorder of Original Papers and Intelligence in Medicine and Surgery. Conducted by SAMUEL COLHOUN, M.D. &c. &c. No. 33, Quarterly Series, for January, 1826. 8vo. pp. 224. Philadelphia, 1826.

☞ In Exchange.

6. The Edinburgh Journal of Medical Science, No. 2, April, 1826.

☞ In Exchange.

7. A Practical Treatise on Diabetes: with Observations on the Tabes Diuretica, or Urinary Consumption, especially as it occurs in Children; and on Urinary Fluxes in general. With an Appendix of Dissections and Cases, illustrative of a Successful Mode of Treatment: and a Postscript of Practical Directions for Examining the Urine in these Diseases. By ROBERT VENABLES, M.D. Physician to the Henley Dispensary, &c. &c. &c. London, 8vo. pp. 214, 1825.

8. A Practical Dissertation on the Means of Obviating and Treating the Varieties of Costiveness, which occur at different Periods of Life, and in Cases of Predispositions to various Constitutional Maladies, in peculiar Temperaments of Body, in Disorders of the Lungs, Stomach, Liver, Rectum, &c. and during Pregnancy, by Medicine, Diet, &c. By RICHARD REECE, M.D. Fellow of the Royal College of Surgeons, &c. London, 8vo. pp. 351, 1826. Longmans'.

9. The Anatomy of the Brain, with a General View of the Nervous System. By G. SPURZHEIM, M.D. of the Universities of Vienna and Paris ; Licentiate of the Royal College of Physicians in London. Translated from the unpublished French M.S. By R. WILLIS, Member of the Royal College of Surgeons in London. With Eleven Plates. London, 8vo. pp. 234. 1826.

10. Observations on the Prevailing Practice of Supplying Medical Assistance to the Poor, commonly called the Farming of Parishes ; with Suggestions for the Establishment of Parochial Medicine Chests ; or Infirmarys in Agricultural Districts. The profits arising from the sale of this Publication will be applied to the benefit of the Eye and Ear Infirmary, established at Southam, 13th April, 1818. London, 8vo, pp. 32—15. 1819.

11. An Essay on Headachs, and on their Cure. By WALTER VAUGHAN, M.D. of the Royal College of Physicians in London. 8vo. pp. 252. London, 1825.

12. An Account of the Morbid Appearances Exhibited on Dissection in various Disorders of the Brain ; with Pathological Observations, to which a Comparison of the Symptoms with the Morbid Changes has given rise. By THOMAS MILLS, M.D. Licentiate of the King and Queen's College of Physicians. Dublin, 8vo. pp. 238. 1826.

13. An Inquiry Concerning that Disturbed State of the Vital Functions usually denominated Constitutional Irritation. By BENJAMIN TRAVERS, F.R.S. Senior Surgeon to St. Thomas's Hospital, &c. &c. &c. London, 8vo. pp. 556. 1826.

✍ See present Number.

14. Practical Observations on the Convulsions of Infants. By JOHN NORTH, Surgeon Accoucheur, Member of the Royal College of Surgeons. London, 8vo. pp. 282, 1826. Price 7s. 6d.

✍ See present Number.

15. Observations on M. Laennec's Method of Forming a Diagnosis of the Diseases of the Chest by means of the Stethoscope and Percussion ; and upon some Points of the French Practice of Medicine. By CHARLES SCUDAMORE, M.D. F.R.S. Member of the College of Physicians in London. London, 8vo. pp. 123, 1826.

16. The Medical Evidence relative to the Duration of Human Pregnancy, as given in the Gardner Peerage Cause, before the Committee for Privileges of the House of Lords in 1825-6. With Introductory Remarks and Notes. By ROBERT LYALL, M.D. F.L.S. &c. &c. &c. London, 8vo. stitched, pp. 104. 1826. 4s. 6d.

17. Annual Report of the National Vaccine Board to the Secretary of State, &c. and on other Papers relative to Vaccination, from the 1st December, 1825. Folio, pp. 13. March, 1826.

18. A Case of Melanosis, with General Observations on the Pathology of this interesting Disease. By THOMAS FAWCINGTON, Member of the Royal College of Surgeons, London, and one of the Surgeons to the Manchester Lying-in Hospital. Illustrated by coloured Lithographic Plates. London, 8vo. pp. 49. 1826 7s. 6d.

The following Works have been received through M. J. B. BAILLIÈRE, Bookseller, Rue de l'Ecole de Médecine, Paris, and No. 3, Bedford-street, Bedford-square, London.

19. Du Magnétisme Animal en France, et des Jugements qu'en ont portés les Sociétés Savantes, avec le Texte des divers Rapports faits en 1784, par les Commissaires de l'Académie des Sciences, de la Faculté et de la Société Royale de Médecine, et une Analyse des dernières Séances de l'Académie Royale de Médecine et du Rapport de M. HUSSON; suivi de Considérations sur l'Apparition de l'Extase, dans les Traitemens Magnétiques. Par ALEXANDRE BERTRAND, Ancien Elève de l'Ecole Polytechnique, Docteur en Médecine de la Faculté de Paris, &c. 8vo. pp. 539. J. B. Baillière, Paris and London, 1826. 7s.

20. Pyrétologie Physiologique, ou Traité des Fièvres Considérées dans l'Esprit de la Nouvelle Doctrine Médicale; Par F. G. BOISSEAU, Docteur en Médecine de la Faculté de Paris, &c. &c. &c. Troisième Edition. 8vo. pp. 722. Baillière, Paris and London, 1826. 9s.

21. Exposé des divers Procédés Employés jusqu'à ce Jour pour Guérir de la Pierre, sans avoir recours à l'Opération de la Saille; Par J. LEROY (d'Etiole,) Docteur en Médecine. 8vo. pp. 232, Four Plates. Baillière; Paris and London, 1825. 4s.

22. Anatomie Pathologique. Dernier Cours de Xavier Bichât, d'après un Manuscrit Autographique de P. A. BÉCLARD; avec une Notice sur la Vie et les Travaux de Bichât. Par F. G. BOISSEAU, Membre des Académies Royales de Médecine de Paris et de Madrid, &c. 8vo. pp. 329, with a Plate of Bichât. Baillière, Paris and London, 1825. 5s.

23. Traité Clinique et Physiologique de l'Encéphalite, ou Inflammation du Cerveau, et des Suites, telles que le Ramollissement, la Suppuration, les Abscess, les Tubercules, le Squirre, le Cancer, &c. Par M. J. BOUILLAUD, Docteur en Médecine de la Faculté de Paris, &c. &c. 8vo. pp. 350, Baillière, Paris, 1825. 6s.

24. Traité des Maladies du Cœur et des Gros Vaisseaux. Par R. J. BERTIN, Professeur d'Hygiène à la Faculté de Médecine de Paris, &c. &c. &c. Rédigé par J. BOUILLAUD, Docteur en Médecine de la Faculté de Paris, &c. Avec six Planches. 8vo. pp. 464. Baillière, Paris and London, 1824. 7s.

 We shall shortly review this important work.

25. An Essay on Cupping, &c. &c. By CHARLES KENNEDY, Surgeon, &c. &c. 12mo. pp. 63, with a Plate. London, 1826.

26. Dissertatio Medica Inauguralis de Ciborum Concoctione Læsâ. Auctore THOMAS HUGHES, Cambro Britanno, Coll. Reg. Chir. Edin. Socio. Edinburgi, 1825.

27. A Picturesque and Topographical Account of Cheltenham, and its Vicinity. By the Rev. T. D. FOSBROKE, M.A. F.A.S. Honorary Associate of the Royal Society of Literature, &c. To which are added contributions towards the Medical Topography, including the Medical History of the Waters. By JOHN FOSBROKE, Resident Surgeon at Cheltenham. Cheltenham, 8vo. pp. 318, with a Map, 1826.

28. Directions for Drinking the Cheltenham Waters ; with a Selection of Cases, illustrating their Effects in a great Variety of Diseases. By JAMES M'CABE, M.D. Author of "Observations on the Cheltenham Waters," &c. &c. Cheltenham, 12mo. pp. 68.

29. An Exposition of the State of the Medical Profession in the British Dominions ; and of the Injurious Effects of the Monopoly by Usurpation of the Royal College of Physicians in London. London, 8vo. pp. 373, 1826, Price 9s.

30. Considerations Pratiques sur Certaines Affections de L'Uterus, en Particulier sur la Phlegmasie Chronique avec Engorgement du Col de cet Organe, et sur les Avantages de l'Application Immediate des Sangsues, methodiquement employée dans cette Maladie. Par J. N. GUILBERT, M.D. &c. &c. &c. 8vo. Paris, 1826.

✍ We shall give an analysis of this interesting little work of the learned Guilbert in our next Number.

31. The Book of Nature. By JOHN MASON GOOD, M.D. &c. &c. In three volumes Octavo, London, 1826. Price 11. 15s. Longman and Co.

✍ These volumes contain a Series of Lectures delivered at the Surrey Institution, some years ago, by the learned author. They treat, (as may be supposed from the title,) of

————— the great globe itself
And all which it inhabit.

32. Farther Remarks on Hernia, in explanation of the Nature of Strangulation, and of Obliterated Intestine, and in Defence of Views and Suggestions towards Improvement in the Treatment. By E. GEOGHEGAN, M.R.C.S. &c. in a Letter to John Abernethy, Esq. 8vo. stitched, pp. 23. Dublin, 1826.

33. A Corrected Report of the Speeches delivered by Mr. LAWRENCE, as Chairman at two Meetings of Members of the Royal College of Surgeons, held at the Freemason's Tavern. With an Appendix, containing the Resolutions agreed to at the First Meeting, and some Illustrative Documents. Published at the request of the Committee appointed at the First Meeting. London, 8vo. pp. 133. 1826.

34. The Surgeon-Dentist's Anatomical and Physiological Manual. By G. WAITE, Member of the Royal College of Surgeons. London, 12mo. pp. 214. 1826.

35. Practical Observations in Surgery : more particularly as regards the Naval and Military Service. Illustrated by Cases, and various Official Documents. Second Edition, considerably enlarged. By ALEX. COPLAND HUTCHISON, late Surgeon to the Royal Naval Hospital at Deal, &c. &c. &c. London, 8vo. pp. 422, with a Plate. 1826.

✍ We hope to be able to notice this interesting work in our Next.

36. The North American Medical and Surgical Journal. Conducted by Drs. HODGE, BACHE, MEIGS, COATES and LA ROCHE. No. 11, April, 1826. Philadelphia.

37. The American Medical Review, and Journal of Original and Selected Papers in Medicine, and Surgery. Vol. II. Nos. 1, 2, for September and December, 1825. Philadelphia.

✍ In Exchange.

38. A Treatise on the Physiology and Diseases of the Ear; containing a Comparative View of its Structure and Functions, and of its Various Diseases, arranged according to the Anatomy of the Organ, or as they affect the External, the Intermediate and the Internal Ear. Fourth Edition; with considerable Additions and Improvements. By JOHN HARRISON CURTIS, Esq. Aurist to His Majesty, &c. &c. London, 8vo. pp. 236, with a Plate. 1826.

39. A Catechism of Anatomy; for the Instruction of Youth in the First Principles of that Science. Duodecimo, pp. 72. Whittaker, June, 1826, price 9 pence.

40. Experimental Researches on the Influence exercised by Atmospheric Pressure upon the Progression of the Blood in the Veins, upon that Function called Absorption, and upon the Prevention and Cure of the Symptoms Caused by the Bites of Rabid or Venomous Animals. (Dedicated by Permission to His Majesty.) With an Appendix containing the Original Reports of Baron Cuvier, and Professors Dumeril and Laennec, to the Royal Academy of Medicine of Paris, &c. &c. By DAVID BARRY, M.D. &c. &c. London, 8vo. pp. 175, with a Lithographic Plate, 1826.

41. An Introduction to the Study of the Laws of Chemical Combination and the Atomic Theory. Drawn up for the Use of Students by EDWARD TURNER, M.D. F.R.S.E. Lecturer on Chemistry, and Fellow of the Royal College of Physicians, Edinburgh. Edinburgh, 12mo. pp. 114. 1826.

42. A Treatise on the Effects and Properties of Cold, with a Sketch, Historical and Medical, of the Russian Campaign. By MORICHEAU BEAUPRÉ, M.D. Regimental Surgeon in the French Service. Translated by JOHN CLENDINNING, A.B. & M.D. with an Appendix by the Translator. Edinburgh, 8vo. pp. 375. 1826.

43. A. Corn. Celsi Medicinæ libri octo ex recensione Leonardi Targæ. Quibus accedunt Tituli Marginales perpetui, capitum librorumque; Annotationes Criticæ, Medicæ, Physicæ: Tabulæ characterum, ponderum, mensurarum, aliæ; Indices Materiæ Medicæ Celsianæ, Rerumque, Omniumque Locupletissimi: Prefixa de Celsi vitâ Dissertatio Concinnavit EDWARDUS MILLIGAN, M.D. S. A.S.S. Collegii Regii Medicorum Edinburgensis Sodalit, &c. &c. &c. Edinburgi, 8vo. pp. 483. 1826.

✍ In all that regards Celsus, Dr. Milligan has given full vent to his enthusiasm for that author; and to a text of immaculate purity, has made many extensive additions. We find many of the hitherto inexplicable passages illustrated; the text commodiously subdivided, and rendered accessible for reading or reference by side-titles, and indexes. The great difficulty which had to be surmounted, was the establishment of the identity of the diseases, medicinal substances and remedies discussed by Celsus, with the individuals of modern nomenclature, and it was scarcely a lighter task to fix, as the Doctor has done beyond all doubt, the relations of the weights and measures he employs to those at present prescribed by physicians. The characters used in abbreviations for these weights by the ancients, were also to be rediscovered from the rare, and almost inaccessible works, over which they were scattered: and we find that in his researches, Dr. Milligan has laid down the original sources of his conclusions with sufficient precision, to enable the merest tyro to satisfy himself of their legitimacy. By the help of a synopsis, with the numerous tables and indexes, Celsus may now be perused with the same facility

and profit as Heberben or Sydenham. We need hardly, after this, say that Dr. Milligan's edition of *Celsus* ought to become a classical and standard work in the library of every medical man who wishes to be acquainted with this elegant ancient writer and most admirable compiler of all the medical knowledge that had accumulated up to his time.

•• NOTE.—Authors and publishers will readily appreciate the importance of having their works recorded, with full length titles, on this list, which stands as a perpetual advertisement so long as the Journal lasts, and as far as it extends. The republication of the Journal in America enhances the advantages of the BIBLIOGRAPHICAL RECORD, on which no work can be entered, unless transmitted, free of expense, to the Editor, under sealed cover to the publishers, or in any other way most convenient to the parties concerned.

N. B.—As the *Bibliographical Record* closes on the 15th of the month preceding publication, all Works received after that date necessarily stand over till next quarter.

XIII.

MEDICAL MISCELLANY.



ENGLISH MEDICAL ETYMOLOGIES.

A. Arabic : Arm. Armoric : B. Belgic : Copt. Coptic : D. Danish : F. French : G. Gothic : Hind. Hindoostanee : Isl. Islandic : It. Italian : L. Latin : L. B. Barbarous Latin : M. G. Mæso-Gothic : O. E. Old English : P. Persian : Sans. Sanscrit : S. Saxon : Scot. Scottish : Sp. Spanish : Swed. Swedish : T. Teutonic : W. Welch.

AGUE, an intermittent fever, accompanied with cold and hot fits; L. *acuta febris* is supposed to have produced our word, but the disease has never been considered as acute. The vulgar call it *agur*, and Isl. *agur*, *ogur* : S. *ega*, *oga*, terror, tremor, may have had *hri*, *hrath*, an attack, a fit, added to it, corresponding with F. *acce*, which is the *accessus* of Pliny.

ALCHYMY, the highest chemistry : A. *al keemiya*, from A. and Copt. *hem*, *khem*, heat, process of heat, *al khum*, an alembic : but some suppose that the A. article has been prefixed to *χεῦμα*.

BODY, the human stature or person ; S. *bodig* ; T. *potih*, signified the human person or stature only ; and there does not appear to be any cognate term, unless *bode* might have been considered as the residence of life, which in all G. dialects is synonymous with what we call body. P. *body* ; Sans. *bodaun*, a being, may possibly have a common origin with our verbs to *be* and to *bide*.

BONE, the most solid part of an animal's body : G. *bein*, *bun* ; Swed. *ben* ; B. *been* ; S. *ban* ; T. *bein* ; all of which, like L. *tibia*, signify a leg and pipe or tube.

BRAIN, the soft substance within the skull; G. *huarn*; S. *hierna*; O. F. *harne*; B. *brein*; S. *bragin*; T. *pregin*, corresponding with *Περικράνιον*.

CHILD, an infant; G. *kyld*, *kulld*, from *eld*, a foetus; S. *cild*; G. *kylla*, to beget. *Kyld* signified particularly legitimate offspring; but *bairn* was applied to any condition; Scot. *chiel*, Sp. *chula*, a youth.

CHINCOUGH, a convulsive cough; T. *kink host*; Swed. *kikhosta*; F. *quinte*; Scot. *kink* is applied to a violent fit of coughing or laughing, from G. *kaugian*, *kikna*; B. *kichen*; S. *aceocan*, to kill by stopping the breath.

COUGH, a convulsion of the lungs; A. *qubhu*; Hind. *kuf*; G. *kuef*; B. *kuch*; the G. word signifies suffocation.

GALL, bile: Isl. *gall*; Swed. *galla*; D. *gald*; S. *gealla*; B. *gal*; *χολή*; S. *geal*, is yellow.

GOUT, arthritis, a periodical disease attended with great pain; F. *goutte*; It. and Sp. *golla*, *gota*, from L. *gutta*, on the supposition that it was occasioned by the distillation of catarrhal humours in the joints; Swed. *gickt*; T. *gicht*; S. *gechta*; are also names for the gout; but, like B. *jeukt*; Scot. *youk*, they signify itching.

HICCUP, a convulsion of the stomach, the yex; P. *hukkak*; Swed. *hicka*; G. *hirt*; T. *hix*; B. *hik*, *hickse*; Arm. *hie*; W. *ig*; L. B. *hoqueta*; F. *hoquet*; Yex is from G. *hex*, *hirt*; D. *hikkes*; B. *hickse*; S. *geocsa*.

ITCH, a cutaneous disease, attended with a desire of scratching; G. *ikt*; Isl. *gicht*; Swed. *gickt*; S. *gichta*; B. *jiochte*; T. *jucke*; Scot. *yuke*. It denoted with the Goths any disorder of the skin, including leprosy, and afterwards also the gout; but the origin of our word is apparently from *eat*, in the same way that we use *mange* from F. *manger*, to eat, to itch.

JAUNDICE, a distemper of the liver, accompanied by a yellowness of the skin; F. *jaunisse*; *jaune*, *jaulne*, yellow; from G. *gul*; S. *geolew*; It. *giallo*.

JULAP, a liquid form of medicine; P. *gulab*, from *gul*, a rose, and *ab*, water; L. B. *julapium*.

KIDNEY, a gland in the reins; G. *kuid*, the belly, and *nare*; D. *nyre*; T. *nier*; S. *nær*, the reins.

LEECH, a medical man, a surgeon; M. G. *lek*, *leikeis*; T. *leck*; S. *læc*, *lece*; G. and Swed. *lækare*, *læknares*; Slav. *likær*, apparently from G. *laka*, to diminish, and called in L. B. *minutor*, a blood-letter; S. *lecan*, to diminish or make small; *læcefinger*, the little finger. The animal, in S. *læce*, *lyce*, is so named from its use in benefiting health, by drawing blood.

LUNGS, the organs of respiration; Swed. *lunga*; D. and T. *lunge*; S. *lungen*; B. *long*; G. *lugu*, the air.

MEASLES, an eruptive disease; T. *masel*; B. *mazelen*; D. *meisting*; Arm. *mezell*; F. *mezel*, leprosy. T. *mase*; L. *maculosus*, signify spotted; but G. *missli*, *mislitür*, discolour, may be the etymon.

MOUTH, the aperture in the head where food is received; Sans *moonh*; Hind. *munh*; G. *mun*, *munth*; Swed. *mun*; T. *mund*; B. *mond*; M. G. *munths*; S. *muth*; Arm. *muzz*; Scot. *mow*; F. *moue*. The word appears to originate from G. *in*, *int*, an entrance; whence G. *minn*; Swed. *mynne*, *myning*, an orifice, an opening inward; and G. *mund*, *mynd*, like L. *os*, signified the countenance.

We have made these selections from a very remarkable work, recently published, which we might designate a System of English Etymology,* in which the true principles of etymological investigation are unfolded, with a simplicity of description, a precision of application, and a comprehensiveness of research, in all respects extraordinary: it is difficult to say, indeed, which is most conspicuous in this volume, the author's great talents, his vast erudition, or the purity of his philosophical deductions: the book itself, we are sure, is altogether original, elaborate, excellent.

VIPER-BITE—SUCCESSFUL APPLICATION OF THE CUPPING-GLASS.

At a meeting of the Academy of Medicine at Paris on the 25th May, Mons. Piorry presented to that learned body a man who had been bitten by a *viper* on the 17th of the same month, and who still, as it would seem, was suffering under some of the effects of that accident.

The bite had, it appears, been inflicted about half past five p. m.—and, at *eight*, when the patient was seen by M. Piorry and two other physicians, his situation was such as to create the strongest apprehensions for his safety. A *cupping-glass*, therefore, was immediately applied to the wound, according to the plan lately proposed and experimentally acted upon in Paris by Dr. Barry, and with the happiest effects.

The relief, however, thus procured, was not, it appears, altogether compleat or permanent, in consequence, probably, of the length of time which had elapsed before the application of the cupping-glass, and the want of practical skill, perhaps, and knowledge on the part of the operators, to whom the proceeding was, of course, entirely new.†

Some unpleasant symptoms, therefore, arose which rendered the repeated application of leeches necessary and retarded the cure, but the man, when exhibited at the academy, was manifestly no longer in any kind of danger.

* Etymons of English Words; by the late John Thompson, M. R. I. and A. S. Private Secretary to the Marquis of Hastings in India: 4to. London and Edinburgh, 1826. Mr. T. was distinguished by the highest characters of a gentleman and a scholar: his work was left in MS. at his death, in a state fit for the press, and has since been published by his family, in a manner exceedingly creditable to their learning and filial piety.

† Globe de Paris, Mai 23.

ANGINA PECTORIS.

Dr. Bruckmann of Brunswick has made some observations on angina pectoris in the *Journal Complémentaire* for April 1826, which we shall just glance at here.

He says, what is indeed true enough, that writers have differed very widely on the cause of this complaint; but we would beg to ask on what subject in medicine have writers not differed? Dr. B. farther observes that in his experience, though the greater number of patients have died from this affection, yet many have recovered. As an instance of recovery he adduces his own case. It is this: The first attack our author experienced was on ascending a considerable height on a cold March morning with the wind to the eastward. Since that time he was more or less subject to paroxysms, particularly in the night; these would come on with an intolerable sense of pressure on the sternum, anxiety, sinking, a kind of paralytic feeling in the arms, and the pulse small and spasmodic, beating from 65 to 80 in the minute. In a quarter or half hour, all this would go off, and sleep return. Since 1824 these attacks have disappeared. Dr. B. remarks that, previously to this complaint, he had been subject to rheumatism, sciatica, intermissions and extreme slowness of the pulse and catarrhal affections.

That this was not an instance of the affection in question, as depending on organic disease, we think there can be little doubt. In all probability this was but one form of that Proteian malady, INDIGESTION. It might have been of a rheumatic origin, for Dr. B. was, it will be observed, very subject to rheumatism; at all events we are sure that no organic disease was present.

But the fact is, that every symptom which appears in fatal angina pectoris, dependent on some lesion of structure in the heart and great vessels, will be generated by irritation in the stomach. A physician of this metropolis had the most exquisitely marked symptoms of this terrible disease, so much so that some of the first medical characters advised him to leave England and go to the South of France, there to live as long, and die as easy, as he could. This being their opinion he left off medicine and restrained himself to the most rigid regimen, leaving off all wine or other stimulants. The consequence was, a complete recovery.

TRANSFUSION.

An ingenious apparatus for performing this operation has been lately produced by Mr. Scott, a surgeon of London, which consists of a tubulated funnel (supported on a metallic stand) to receive and convey the blood into the lower chamber of a pump by which it is propelled, through a short flexible tube, into a vein of the patient. This tube is armed with a silver pipe, tapering to a point with an oblique oval aperture at each side, and curved at an obtuse angle, $\frac{1}{4}$ of an inch below the extremity: behind this curve, a broad shield intersects the pipe in a diagonal direction. This structure not only enables the surgeon to pass the pipe with facility through the opening made by a lancet in the vein (without laying it bare) but allows it to be lodged securely within it, the current of blood being directed by the oblique position of the apertures, directly forwards in the course of the vein; whilst its regurgitation is prevented by the pressure of the shield upon the external opening. There is also another armed flexible tube for taking the blood, if preferable, immediately from the vein without atmospheric communication.

This apparatus has been attached so correctly by Mr. Read, to his patent syringe, that the whole is mathematically true, and blood may be transmitted from one person to another without the injection of a globule of air, a circumstance essentially necessary in an operation of this nature.

XIV.

INTELLIGENCE, CORRESPONDENCE, &c.

We give the following queries and speculations on a curious and obscure subject in the words of an ingenious and able practitioner of this metropolis. We leave them to the meditation of the chemical and physiological enquirers.

Query.—Is light, when particularly modified or combined, identical with the nervous fluid?

Whatever may be the primary source from whence life emanates, which governs, influences, and occasions the development of the animal system, yet another principle exists by which life is sustained—the whole animal machinery set in motion—and a communication formed between different parts of the system.

This effect, like magnetic and electrical action, is generally admitted to be accomplished by a fluid merely taking its name from the channels through which it flows, being termed the nervous fluid.—If our attention, in the first instance, is directed to the mode by which caloric is generated by the action of oxygen gas on carbonaceous matter, we are led to the conclusion that the air we respire produces the like effects on the blood, not entirely while it circulates within the lungs, but gradually as it passes throughout the arterial system, producing a species of subcombustion, and promoting an uniform temperature. But in combustion, (as we commonly observe it) not only is heat emitted, but a sensible quantity of light is given out. We are now led to enquire how the light is disposed of which is generated during the process of subcombustion within the blood. Light no doubt, like caloric, forms an essential constituent of oxygen gas, and, similar to it, remains in a latent state until some new combination of the oxygenous atoms set it at liberty; therefore, it is by no means improbable that, at the very period when caloric is given out, light also commences its agency—is modified—and becomes the nervous fluid. In this state it may be immediately taken up and transmitted by certain nerves giving, by ingression, the power of external sensibility—hence any mechanical impression upon them produces farther modification of this fluid, and, when transmitted to particular organs of cognizance, forms respectively the act of vision, of hearing, and of feeling, &c. &c. But although it may be said to perform these functions it is possible it fulfils others also. May not a portion be transmitted to, and condensed in, various receptacles (like electrical receivers) and be elicited in the various operations of the mind constituting, by egression, volition, and also involuntary motion? As arguments in favor of these suppositions, galvanic action may be referred to. In the voltaic pile in proportion as the metals undergo oxydizement, so is the electric fluid given out. Here again we perceive the probability that a certain portion of light remained in a latent state combined with the water used in the experiment, which, as soon as the oxygen enters into new affinities, is set free with new properties. If these ideas be entertained, we shall be induced to trace the galvanic and nervous fluids to the same origin; indeed, as the identity of these fluids is nearly established, why should not their sources be also similar.

Again, if we notice the sudden cessation or interruption of the nervous functions, if respiration be impeded or vitiated, we cannot attribute it to a

defect of caloric, for this may be supplied and life still be imperfect—neither can it arise from want of action of the thorax, for this may be communicated artificially without effect. It, therefore, seems to depend on the sudden deprivation of some very active principle which cannot be retained long, only exerting its agency at the moment of creation and thus requiring constant renovation.

It may be compared to the combustion produced by immersing a platinum wire in the vapour of ether.

Light, in a latent state, may be termed lucigen, and carbonaceous combinations seem to have less capacity or affinity for it than those of hydrogen—thus, we observe the pale flame of hydrogen and the vivid light of carbon whilst undergoing combustion indicating that much latent light enters into the composition of water.

. Some experiments recently made prove that violet rays of light are capable of magnetizing iron.—R.

Expeditious Warm Bathing. The most ingenious, and we believe the most useful, bath which we have ever seen, is that lately invented by Mr. Hicks, surgeon, of Conduit-Street, and constructed and sold by Deen, of No. 185, Regent-Street. It is of the common size, and made of copper—runs on castors—and may be readily wheeled from one room or part of a house to another. It has a kind of hollow false bottom, every where surrounded by water, into which a piece of lighted paper is thrown, and the liquid fuel turned on by means of a small cock. The flame instantly pervades the whole of this hollow bottom, and, in consequence of its intensity, and the extensive surface of application, the water in the bath is heated in ten minutes from 55 of the thermometer to upwards of 100. As the copper forming the hollow bottom is every where, excepting an aperture at each end, in contact with water, it never becomes heated beyond the temperature of the fluid, and consequently there is not the least danger of any accident to the bath. The rapidity with which a warm bath can thus be produced, is truly surprising; and is a desideratum in private houses, and, indeed, in public establishments, which has long been wanted. The expense of the fuel for heating the bath is, we understand, about one shilling. We have seen it put in operation, and recommend an examination of the bath to our medical brethren.

Cupping Apparatus. Mr. Kennedy, of Virginia Terrace, Great Dover-road, has invented a most simple and ingenious apparatus for cupping, which we cannot describe properly in words, but which may be seen by any medical gentleman at the Editor's residence at all times. This apparatus renders the operation extremely simple and easy, and, consequently, will be of great service to those practitioners in the country and colonies, who may not have all the expertness of a metropolitan cupper.

Hospital Reports. We have, on several occasions, expressed our hopes that the medical officers of public institutions in this country, metropolitan and provincial, would be induced to follow the example of their Continental brethren, in laying before the profession at large, through the medium of the press, the results of their experience in the said institutions, and thus extend the benefits of those asylums of sufferings far beyond the sphere to which they are now confined. It is with sincere satisfaction we have lately learnt that the operation of such a benevolent and useful procedure is at hand, and that, by the time this Number of our Journal has seen the light, the publication of Hospital Reports will have commenced. We are

confident that no measure is more calculated to improve the practice of our profession than this—or raise it in the estimation of our brethren in other countries. One of our most respected contemporaries has announced its intention of dedicating a department to this special purpose, as will be seen by a prospectus in this Journal, and, for the present, we can only wish it success. In our next we hope to be able to add our mite of praise to the execution of the undertaking.

In the mean time, we beg to throw out one hint, the importance of which may perhaps be more apparent hereafter than at present:—it is the propriety, not to say necessity, of appointing some diligent and attentive pupil to watch and record interesting cases, under the inspection of the physician or surgeon, by which means the history will be rendered more full—the facts more authenticated—and both the pupil and the public benefited.

Two of our intelligent and enterprising countrymen (Dr. Edmund Clark and Captain Sherwell) have lately conquered the formidable difficulties and dangers of the ascent to Mont Blanc, and seated themselves on the summit of that hoary king of Alps. Dr. Clark's narrative, published in the New Monthly Magazine, contains some very interesting particulars (in a medical and physiological point of view) of that arduous undertaking. We recommend the perusal of it to our professional readers.

The New Edition of Laennec. The long expected second edition of Laennec's celebrated Treatise on Diseases of the Chest, has, at length, reached this country. It is nearly double the size of the former edition, and is greatly improved in the arrangement, besides containing the entirely new department of the *treatment*. We hope to lay before our readers, in an early number, the principal novelties in these volumes; in the meantime we venture to recommend them to our readers as containing the most complete treatise on diseases of the chest, to be found in any language. We are happy to add to this notice that Dr. Forbes, the translator of the former edition, is already occupied, in preparing for the press, a second edition of his translation, containing all the improvements of the treatise above-mentioned.

Reclamation. We have received a letter from Mr. Abraham, formerly of Worcester, now of Carlisle, complaining of the unfairness of our analysis of his "Case of Sanguineous Apoplexy," published in the October number of the Edinburgh Medical Journal, and noticed at page 266 of our number (VII.) for January last. On referring to the original case and to our remarks on it, we have satisfied ourselves that we have neither garbled nor misrepresented Mr. Abraham's statements. Mr. A. has the public tribunal to appeal to, if he thinks himself wronged; and we hope he will place the original case, with our comments, in juxtaposition, before that tribunal for their determination. That we have no personal feelings of unkindness to Mr. Abraham, will be evident to himself, from the manner in which we have spoken of another paper from the same pen, in the Periscope of this quarter—which notice was sent to press long before we had received Mr. A.'s letter.

Our analysis of Mr. Combe's system of phrenology has been retarded by particular engagements of our correspondent who undertook the charge of concentrating the principles of that important work: his MS., though too late for insertion in the present Number, has been received, and the article shall appear in our next publication: its chief object is to shew the great

practical advantages which a knowledge of the new mental philosophy is calculated to confer on the applications of medical science.

Mr. Henry Edmonston, of Newcastle-upon-Tyne, has in the press a letter to the Right Honourable the Earl of Liverpool concerning the present state of vaccination.

A medical gentleman, in genteel private practice, and most eligibly situated in the centre of the hospitals and medical schools, in the west end of the town, will take into his family one pupil, whose education he will superintend, while attending hospitals and lectures. The terms are moderate. Reference for the name and character of the gentleman may be made (by letter post paid) to Dr. James Johnson.

A general practitioner of considerable experience, in order to obtain a more extensive connexion than his present situation affords, wishes to purchase a share, where there might be a probability of his succeeding to the whole, of an established business.

Any gentleman having it in contemplation to retire in a few years, would find this an eligible opportunity for realizing the value of his practice. Apply, if by letter, post-paid, to Mr. Waugh, 177, Regent-street, London.

Mr. J. B. Baillière, of Paris, Bookseller, (Rue de l'Ecole de Médecine, No. 14,) has formed an establishment, No. 3, Bedford-street, Bedford-square, for the sale of French books of medical science, in French, German, Italian, and in other languages, which are sold at the Paris prices, No. 3, Bedford-street, Bedford-square :

<i>The following are specimens of the Prices.</i>		£.	s.	d.
1. Boisseau, Pyretologie, ou Traité des Fièvres, en 8vo. prix	0	9	0	
1. Bichât, Anatomie Pathologique, en 8vo.	0	9	0	
1. Leroy, Exposé pour Guérir de la Fièvre, en 8vo.	0	4	0	
1. Bertin, Maladie du Cœur, en 8vo.	0	7	0	
1. Bouillaud, Inflammation, en 8vo.	0	6	0	
1. Bertrand, du Magnétisme en France, en 8vo.	0	7	0	

On the first of July will be published—Remarks on the late Attempt to subvert the Charter of the Royal College of Surgeons ; with a dispassionate Examination of some of the Regulations of the Court. To which are subjoined, Animadversions on the evil tendency of "The Lancet," and Observations respectfully addressed to general Practitioners on the best means of maintaining their respectability and privileges. By WILLIAM COOKE, Member of the Royal College of Surgeons, Editor of an Abridgement of Morgagni's De sed. et Causis, Secretary of the Hunterian Society, &c.

Our readers will have seen, by the public prints, that damages have been awarded against us to the amount of one hundred pounds, for what appeared in the last number of this Journal respecting the Conductors of the Lancet. The Profession will draw their own conclusions on the event.

Additional Subscribers since last Quarter.

A.
**ARCHER, Mr. William, East India
Company's Service.**

B.
**Bouchier, Thomas, Esq. Surgeon,
36th Regiment.**
**Burrows, Mr. E. Surgeon, 114,
High Holborn.**

C.
Callow, Mr. Surgeon, 81st Regt.
**Campbell, William, Esq. Argyll-
street.**
Carrol, James, F. M.D. Limerick.
**Creed, George, Esq. Surgeon,
West Suffolk Militia, Bury St.
Edmunds.**
Corbyn, Mr. East Indies.
Cornelius, M. Hamburgh.

E.
**Edmonston, Henry, M.B. New-
castle upon Tyne.**

H.
**Heron, Mr. Surgeon, Charlotte-
street, Fitzroy-square.**

I.
**Ives, Thos. Esq. Surgeon, Chol-
ham, Surrey.**
Jenkins, Mr. Surgeon, Gosport.

M.
Mason and Scarwell, St. Osyth.
M'Dermott, John, M.D. Ayre.
M'Dowall, Mr. J. Surg. Glasgow.

**Miller, Mr. Chas. R.N. M.R.C.
Hastings.**

**Morgan, Mr. Surgeon, Sloane-
street.**

N.
**Nevison, Mr. Assistant Surgeon,
5th Regiment.**

O.
Osmond, Mr. Surg. Thorpe.

P.
Parkinson, Dr. Woolwich.
**Parrott, William, Esq. Surgeon,
Cape Corps.**

R.
Rhood, Mr. Surgeon.
**Robertson, Mr. Assistant Surgeon,
70th Regiment.**

S.
**Scott, Mr. Surgeon, Newington
Causeway, Borough.**

W.
**Watson, Dr. Staff Surgeon, Ports-
mouth.**

**Williams, Mr. Assistant Surgeon,
27th Regiment.**

**Wilson, James, Esq. to Buenos
Ayres.**

Wilton, Dr. Upminster, Essex.

Y.
Young, Mr. Surgeon.

A practice or a partnership is wanted by a gentleman who is properly qualified, and who is well known to the Editor of this Journal. Application (post paid) or verbally may be made to Dr. Johnson.

✂ No. 8 of this Journal, may now be had by application through the proper channels.

Owing to a temporary illness of the Editor (from which he is now recovered) some typographical errors have crept into this Number, while passing through the press. A more particular corrigenda will be given at the end of the next Number, which concludes a volume.

p. 46—for *mummication* read *mummification*.

51—for *psamureticus* read *psammeticus*.

THE
MEDICO-CHIRURGICAL
REVIEW.

VOL. IX.]

Analytical Series.

[No. 26.]

“ Nec tibi quid liceat sed quid fecisse decebit
“ Occurrat, mentemque domat respectus honesti.”

VOL. V.]

OCTOBER 1, 1826.

[No. 10.]

[NEW SERIES.]

I.

1. *Experimental Researches on the Influence exercised by Atmospheric Pressure upon the Progression of the Blood in the Veins, upon that Function called Absorption, and upon the Prevention and Cure of the Symptoms caused by the Bites of Rabid or Venomous Animals.* (Dedicated by permission to His Majesty.) With an Appendix, containing the Original Reports of Baron Cuvier and of Professors Dumeril and Luennec, to the Royal Institute of France, and to the Royal Academy of Medicine of Paris, &c. &c. By DAVID BARRY, M.D. Knight of the Order of the Tower and Sword, Member of the Royal College of Physicians in London, First Surgeon to the Portuguese Army, Surgeon to the Forces, &c. 8vo. pp. 174. Plates. London, 1826.
2. *The Syphonic Theory, or Brief Observations on the Circulation of the Blood, and on Respiration as connected therewith.* By EDWARD HOPLEY, Surgeon, R.N. 8vo. sewed, pp. 40. 1825.

DR. BARRY has done honour to himself and to his country, by a suite of ingenious experiments on the functions of circulation and absorption. The experiments on the *latter* have already led to most important practical conclusions in respect to the management of poisoned wounds, and will, we believe, transmit Dr. Barry's name to posterity as a philanthropist

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who shall have—"diminished the amount of human evils by increasing the stock of human knowledge."—It is with the subject of absorption, therefore, that we shall principally occupy our time and that of our readers in this article—not that we consider the *phenomena* of the circulation as explained by the perfect knowledge which we have of the *machinery* employed in that process—but because we fear that the process itself is still enveloped in as great mystery as ever. Harvey demonstrated, beyond all possibility of doubt, the *course* of the circulation—but not the *cause* of it. In making the heart the sole agent, we believe he erred. We think the vital and elastic powers of the arteries contribute to the blood's progression in those vessels—but a cloud hangs over the causes which move the blood from the extremities of the veins to their termination in the heart.—Various theories, or rather conjectures, have been formed from time to time, to account for the venous circulation—as the power of the heart, or *vis à tergo*, (which, indeed, is that of Harvey) the joint power of heart and arteries—some mysterious power in the capillary system—and lastly, a suction influence (the removal of atmospheric pressure) in the heart itself, or in some part of the machinery of respiration. This last power has been imagined, but never proved by experiment, till the time of Dr. Barry. He has, therefore, all the merit of a discoverer—provided the doctrine be true.

But before giving our readers a general outline of Dr. Barry's theory, we shall stop a moment on the subject of experimenting upon living animals. We need hardly say that we expressed ourselves in the strongest language which we could employ against the vulgar outcry ("not entirely unsupported," as Dr. Barry truly observes, "by some leading professional men") which was lately raised against every thing like inquiry, having for its basis *direct experiment upon living animals*. From the general silence that has reigned since that protest, among the ultra-Brahminical portion of the profession, we conclude that they are a little ashamed of their inconsistent philanthropy, and that we shall hear no more vociferations against the pretended cruelty of vivisections—a cruelty which has been practised by the wisest and most virtuous men of the ages in which they lived. The experiments of Harvey were honoured by the presence of his sovereign ("in jugulari vena interna denudata dante vivæ (coram multis nobilibus, et rege serenissimo domino meo, assistentibus) per medium divisa, &c."—*De Circ. Sang.*) who placed an unlimited supply of animals at his disposal. The illustrious Bacon, too, in drawing a picture of

what a university ought to be, puts the following words into the mouth of one of the Patres Domus Salomonis : “ *Habemus etiam septa et vivaria pro bestiis et avibus omnigenis, quibus, non tam propter novitatem et raritatem, quam ad dissectiones et experimenta anatomica utimur, ut ab iis, quid fieri possit circa corpus humanum lucem accipiamus, &c.* ” — *Nova Atlantis*. Haller, also, who had at least as much real religion and true piety as some of those hyper-sensitive surgeons, “ *qui nihil nisi homines secant,* ”* gives the following as his opinion :—“ *dissecanda ergo animalia, verum minime sufficerit cadavera dissecuisse, viva incidisse necesse est.* ”

“ They,” says Dr. Barry, “ who inveigh most loudly against experiments upon living animals, and who affect an excess of sensibility, have never made any experiments themselves. They are contented with the exposition of what they, in their wisdom, suppose nature *ought* to do, instead of investigating what she *actually* does.

“ Others talk of needless cruelty. If any useful knowledge is to be obtained by an experiment, none of the means necessary to arrive at this knowledge can be needless, and none else can be adopted without defeating the purpose aimed at ; therefore, in useful experiments, there never is needless cruelty, or, in other words, unnecessary pain inflicted.

“ When medical men are praised at public meetings, and their letters there read with applause, in which they profess the determination, neither to open the living book of animal nature themselves, nor permit it to be opened by the youth committed to their charge, our best feelings are allowed to take a very wrong direction. *There are those, however, who have had the candour and the honesty to assert in the face of this vulgar clamour, that we have as good a right to make animal life subservient to the increase of our useful knowledge, as of our bodily strength and amusements.* This is plain common sense, and must in the end prevail.”

We, at least, did not betray our duty by keeping silent when hypocritical cant was usurping the place of true philanthropy! But to return from this digression to the immediate subject of Dr. Barry's Essay.

1. THE VENOUS CIRCULATION. Some vague and unauthenticated notion that the return of blood by the veins was in some way influenced by *suction*, may be traced as far back as Haller, who, with others, had noticed a marked coincidence between the respiratory movements of the thorax, in the warm-blooded mammalia, and the motion of their venous blood. But

the mechanism by which Nature applies the agency of atmospheric pressure to the veins, and connects the expansion of the chest with the afflux of centripetal fluids to the heart, was never pointed out. Some of Dr. Barry's experiments, however, had been nearly approached, while others, as that upon the pericardium, had never been imagined by any man. But as we cannot do justice to Dr. Barry's reasonings or experiments within the limits which we propose to ourselves, we must refer to the work itself for a clear development of both the one and the other, contenting ourselves with a concise account of one or two experiments which, indeed, will give a pretty good insight into the scope and tendency of our author's theory.

Exper. 1. A horse, which had been condemned to death, was thrown on his right side, and the jugular vein laid bare and tied. An inch below the ligature a large-sized flexible catheter was introduced into the vein in a direction towards the heart, having a spiral glass-tube fitted into its outer end. When the horse was thrown, his breathing became almost entirely thoracic, and the rising and falling of the ribs could be distinctly counted. The respiration was almost audible. The catheter having been pushed towards the heart as far as it would go, a ligature which had been passed under the vein, was firmly knotted round both. The point of the spiral tube (on which the finger had been kept) was now immersed in a cup of solution of Prussian blue. The moment Dr. Barry removed his finger, the blue liquid rose through the spiral tube, and flowed rapidly towards the heart. The undissolved particles of blue were seen to pass up from the cup and round the tube during *inspiration*, and halt or return slowly towards the cup during *expiration*. Not a drop of blood was seen to enter the tube, but bubbles of air sometimes appeared upon the surface of the liquid in the cup during expiration.

Dr. Macann, who assisted in the experiment, was fully satisfied of the correctness of the foregoing statements.

"To vary the proofs of this wonderful coincidence between the movements of the blue liquid in the tube and the respiration of the animal, I withdrew the point C. from the liquid in the cup for a moment during *inspiration*, so as to admit one or two bubbles of air, and returned it again immediately. A space more or less extensive of the tube became thus transparent. Upon the next inspiration these bubbles were forced round the spiral with considerable velocity, and the whole tube again became uniformly blue by the ascent of more liquid from the cup. This part of the experiment, several times repeated, invariably afforded the same results." 13.

A considerable quantity of water and air had now been drawn into the circulation, and the animal gave strong signs of suffering. The experiment was, therefore, discontinued.

In the course of various repetitions of this experiment, Dr. Barry had occasion to remark, 1st. That, when the animal was standing, although the coloured liquid invariably rose in the tube, atmospheric pressure was never so distinctly marked as when he was prostrate. 2dly. The connexion between the motion of the liquid in the tube and the respiration could not be so satisfactorily observed while the horse was standing. 3d. When the respiration became hurried, from whatever cause, there was a frequent regurgitation of blood through the tube—a circumstance which never occurred except at the moment of expiration.

Exper. 2. Dr. Barry introduced into the thorax of a dog, near the median line, and on each side of the posterior extremity of the sternum, a metallic tube, pointed like a writing pen. The animal was placed on his back, and tubes were directed downwards and forwards parallel to the mediastinal pleuræ, suspending, in this position, the pericardium from the sternum. To the external extremity of each tube was attached a small caoutchouc bag filled with a composition of lard and wax, and pierced at its bottom by a small hole.

“As soon as the point of the tube had penetrated the pleura, I took a small flexible catheter, having at one end the barrel of a quill, in the side of which I had made a cut to act as a valve, opening readily from within outwards, and shutting in the contrary direction by its natural elasticity. The catheter thus armed, I passed into the hole in the caoutchouc bag, through the metal tube and into the chest. The little bag was attached to the margins of the wound by suture. This being done on both sides of the sternum, I next fitted to the outer end of each catheter which had been hitherto plugged, a spiral glass-tube, one end of which was already immersed in a coloured liquid. The communication being thus complete on both sides, the liquid rose rapidly through the spirals and flowed into the chest during inspiration, and remained stationary or fell during expiration. The movements of the liquid in the tubes were so regular, and so completely dependant upon the respiratory movements of the animal, that the one might be counted whilst observing the other. During inspiration I admitted into the glass-tube bubbles of air and small portions of the blue water alternately, so as to make the ascending column resemble a string of coloured beads, which played up and down through the spirals, particularly towards the latter part of the experiment, marking in a beautiful and striking manner the stages of the animal's respiration.” 17.

Before the dog was destroyed, a stop-cock was fitted into his

trachea, so as to command his respiration. When the stop-cock was shut, and the animal made powerful efforts to inspire, the blue liquid flowed upwards through the spirals with much greater force and rapidity than when the passage of the air through the windpipe was unobstructed.

Exper. 3. A similar communication still remained to be established with the bag of the pericardium, but, from some anatomical peculiarities in this animal, the experiments did not succeed. In the horse, however, Dr. Barry was enabled to pass a pointed tube along the surface of the xiphoid cartilage, through the lower margin of the diaphragm, and into the pericardium at its posterior and inferior angle, without penetrating the peritoneum. The tube was armed with a bag, as in the preceding experiment. Through this bag Dr. B. passed a flexible catheter into the tube, nearly to its point. Thus, when the pericardium was penetrated, the catheter could be pushed in immediately, and to any length, so as to prevent the heart from being wounded by beating against the point of the tube.

“ In all the cases in which I succeeded in establishing a communication between the bag of the pericardium exclusively, and a coloured liquid, the fluid rose in the tube as rapidly as in the former experiments, and, in all but one, its motion upwards was governed by the animal's inspirations. In all, however, with the exception of this single case, although the liquid invariably halted or descended during expiration, there was an oscillation of the fluid upwards, which seemed independent of respiration, but could not be observed during inspiration, because then it was confounded with the general motion of the liquid upwards. This third movement was acknowledged by my friend Mr. Bennett, an anatomist and physiologist, as distinguished as he is modest.” 21.

In this country, and at the Veterinary College, Dr. Barry repeated the first and third experiments, before Mr. Coleman, Mr. Sewell, and several eminent medical gentlemen, who all expressed their satisfaction at the entire success of the experiments—particularly that upon the pericardium. The operation was performed on a donkey. Some other experiments were made, but we have not space for them in this article. We shall now give Dr. Barry's conclusions in his own words.

“ From what has been said, and from what has been observed in the experiments, the two following facts may be considered as proved:—

“ *First*,—That the cavities of the great veins within the thorax, and all the thoracic cavities, draw towards them the fluids with which they are placed in direct communication.

“ *Second*,—That this attraction, or suction, never takes place but during the expansion of the thorax, that is, during *inspiration*.

“ From these facts, and from what we have seen in the last experiment, we may conclude—

“ 1st. That the blood which runs contrary to its own gravity, arrives at the heart only during inspiration.

“ 2dly. That the power which impels it at this moment through the veins, is atmospheric pressure.

“ 3dly. That as this power can be applied to the blood of the veins only at the time of inspiration, this blood must move with a velocity which is, to that of the blood moving through the arteries, as the time occupied by a whole respiration is to the time occupied by a single inspiration.

“ 4thly. As the blood passes through the greater veins during inspiration only, whilst it is incessantly traversing the arteries, it follows, that an accumulation must take place somewhere between these two orders of vessels, and that the quantity of this accumulation must be to the quantity which passes through the arteries during an entire act of respiration, as the time of one expiration is to that of a whole respiration.

“ 5thly. That, as it makes no difference with regard to the event, whether the accumulation which must be prepared for the expansion of the thorax, be made by two pulsations of the arteries or by ten, it follows, that the frequency of the pulse cannot be taken as the measure of the velocity of the blood returning to the heart, because it is the repetition of the inspirations which must regulate this velocity.

“ 6thly. That there are three quantities of blood; one passing through the arteries, one which is sucked up by each expansion of the thorax, and a third, which is collected during expiration between these two points. When therefore the respiration becomes hurried, this third quantity is diminished, whilst the other two are increased in proportion; but as the heart can admit only a certain quantity, the expanding cavities regurgitate the surplus during their collapse. Hence pathological phenomena, into which I shall not enter for the present.

“ 7thly. That the lymph and chyle must be sucked up towards the chest, through the direct communications which the vessels peculiar to these fluids have with the subclavian and other veins. The question of absorption, therefore, which has hitherto puzzled physiologists so much, may now be considered as decided, for it is clear that the open mouth of a vein, or of any other vessel, having the same kind of communication with the thoracic pumps, must absorb in direct proportion to the sucking power applied to it, and to the pressure exercised upon the matter to be absorbed.*

“ If this last proposition be well founded, so ought to be the following corollary, viz.

“ *That the application of a powerful cupping-glass to a recently-poisoned wound, would prevent the absorption of the poisonous matter.*

“ 8thly. It being now evident, from every thing that has been said, that the blood in the veins is placed under the influence of atmospheric pressure, it would be curious to trace the connexion which appears to

* See Experiment, No. 1, page 10.

exist between disease generally, intermittent fever for example, and the daily barometric variations.

" 9thly. The preceding facts explain also why animal life cannot be maintained beyond a certain degree of atmospheric rarefaction, and why it must cease as soon as the pressure of the surrounding air ceases to be superior to the gravity of the column of blood. Birds are provided with a respiratory mechanism, which, in some measure, exempts them from this inconvenience.

" 10thly. At the cardiac extremities of the great veins there exists, as we have shewn, a mechanism, which, when called into action by the expansion of the thorax, distends their cavities, and, consequently, causes the suction of the blood of the veins of the lesser, as well as of the greater, circulation. Now, as this mechanism can act only during inspiration, and as, from its construction, and its position, it must necessarily affect those portions of the auricles within the pericardium, called the sinus venosi, it follows that there can be no alternation of contraction between these parts of the auricles and the ventricles corresponding to the pulse, because the sinus venosi must be in a state of progressive distension from the beginning to the end of inspiration." 39.

With this succinct view of Dr. Barry's experiments and conclusions relative to the venous circulation, we must leave the subject—acknowledging that those who wish to have a complete idea of this theory must peruse the original, with all its contributory elucidations. Our own impression is, that the motions of the chest, in inspiration, have very probably an influence on the current of the venous circulation, but the degree of influence does not appear to us of that magnitude which it does to the able and ingenious experimenter. The great drawback upon this and upon Dr. Carson's theory, is the circulation of the fœtus, where there can be no respiratory influence exerted, and yet where every thing goes on well. Dr. Barry has not yet been able to render any explanation of this formidable objection; but we understand he is preparing a work on the *whole of the powers* concerned in the movement of the blood in the different vessels, and till that appears we shall not enter into any examination of the theory of venous circulation propounded by this ingenious physician,

Before proceeding to the subject of absorption, however, we may just observe that Mr. Hopley, author of the little work entitled "the Syphonic Theory," at the head of this article, conjectured some years ago, "from the consideration of many particulars, that this operation (the flow of blood in the veins) must be brought about by the power of suction existing in the chest." As Mr. Hopley made no experiments to prove this—and as the conjecture is not original with him, we do not consider it necessary to say more on the subject at present.

II. ABSORPTION. The knowledge of absorption may be traced in the history of poisoned wounds. How or when this baleful art originated is hidden from our researches—but it is evidently of the very earliest antiquity—and arrived at a much greater degree of *perfection* (if such a term can be allowed) in days of yore, than in the present scientific æra. The arrows of Hercules—the sufferings and death of Chiron, Nessus, &c. furnish so many direct proofs of the knowledge which man had acquired, in those remote ages, of the means of destroying his fellow creatures. The *manner* in which the mixture of the poison with the blood was effected, has not been recorded—at least till the times of Celsus and Galen. These physicians perceived that the veins were the fittest organs through which the matter from abroad could pass into the general system, and hence they recommended that ligatures should be applied above the poisoned wound, if on a limb. This view of external absorption prevailed for seventeen centuries, and doubtless the absorbing power was attributed to veins, arteries, and other vessels in common. In the middle of the eighteenth century, this power was first exclusively confined to the lymphatics. The authority of the Hunters overturned all the opinions of antiquity on this subject. But in recent times, Majendie has demonstrated the error of this exclusive doctrine, and the truth of the older one of venous absorption, as held by Celsus, Galen, Redi, Ruysch, &c. But Majendie did not satisfactorily shew the causes which induce or compel the matter deposited on a wounded surface to enter the cavities of the veins, and mix itself with the current of the circulation. Our author thinks that “the notions of a peculiar unintelligible vital power of discernment and appropriation, existing at the ends of the absorbing radicles, cannot even be alluded to.”

We grant that it is rather difficult for the mind to endow the venous radicles into this elective capacity ; but when we consider the peculiar and comprehensive powers of the lymphatics and lacteals, it will be as difficult to deny to *them* at least, such discriminating faculties.

M. Majendie proposed *imbibition* as the mode in which matter was transferred from the surface of a wound to the venous current:—thus, the matter, if solid, is first dissolved in the fluids of the wound, and when the coats of the vessels are soaked in the solution, that part of it which penetrates to their inside is washed off and carried forward by the current of the circulation. To this doctrine Dr. Barry objects the following difficulties.

“ 1. There must be a current flowing in the vein through the coats of which the imbibition takes place, else the imbibed matter cannot be washed off and carried forward.

“ 2. If the vein does contain a fluid, the imbibition or passive soaking of its coats may take place at least *as readily* from within outwards as in the opposite direction.

“ 3. The open mouth of a divided or wounded vein cannot become the subject of imbibition under any circumstances, and if the vessel be collapsed and empty imbibition will take place to no purpose, there being no current to carry forward the imbibed matter.

“ 4. In all wounds minute arterial and lymphatic branches must be divided and laid bare as well as veins, and as there can be no very great difference in the density of their coats, imbibition may take place through the sides of all, and consequently absorption if there be a current flowing through their tubes, but not otherwise,” 81.

Nevertheless M. Majendie has unequivocally proved that matters *do* reach the circulation in some way or other, and, therefore, Dr. Barry observes that there must be some agent beyond mere *passive imbibition* to give this unvarying direction from without inwards, to a liquid applied to the surface.

At the present time, some, still hold that the lymphatics are the sole absorbents—some, that the sanguiferous veins alone perform this function—some that both are concerned in it. All know that absorption does take place—a fact that was known two thousand years ago.

In respect to the doctrine of absorption as applied to poisoned wounds, it would appear that little or nothing is said of these inflictions by Hippocrates, although he makes the first allusion to cupping-glasses, in the following words:—“ *Cucurbitulæ, quæ eum in usum fabricatæ sunt, ut ex carne attrahant et avellant.*” In the Iliad, however, Machaon is made to suck the wound of Menelaus, which is the earliest record of a vacuum being applied to a wound, whether poisoned or supposed to be so. When the blood-vessels were pointed out as the channels for conveying the poison, ligature above the wound naturally suggested itself, and as the cucurbitulæ attracted towards them the contents of these vessels, their utility was rather confirmed than otherwise. Accordingly Celsus places the cucurbitulæ unequivocally at the head of all preventive and remedial agents, in cases of recently-poisoned wounds, as may be seen in the following passage. “ *Utique autem, si rabiosus canis fuit, cucurbitula virus ejus extrahendum est; deinde, si locus neque nervosus, neque musculosus est, vulnus id adurendum est.*”

“ For the bite of the viper, he recommends that a ligature should be

immediately placed above the wound. ‘*Deis venenum extrahendum est. —Id cucurbitula optime facit.*’ If, he adds, there should happen to be no cupping-instrument at hand, a circumstance which can scarcely be supposed as likely to occur, ‘*Homo adhibendus est, qui vulnus exsugat.*’

“ These passages, and many others to be found in the same author, fully prove—

“ 1. That the *cucurbitulae* were the chief, if not in his opinion, the only effectual means to be resorted to for the extraction of poison from wounds.

“ 2. That these instruments were so universally applied to this purpose at the time he wrote, that they were always to be found at hand.

“ 3. That direct suction by the mouth was next to cupping the best preventative, and that either of them was sufficient in cases of viper-bites; for in his directions upon this subject the cautery is not mentioned.

“ After this the question of priority in the application of a vacuum to wounds inflicted by the bites of rabid and venomous animals, for the purpose of extracting the poison, can be entertained only by the antiquarian, and no man more modern than Celsus can be at all contemplated in the discussion of it.” 86.

Strabo, Pliny, Galen, Plutarch, and many other ancients mention the *Psylli*, the *Marsi*, and the *Ophigenes*, as having the reputation of being born with the hereditary power of curing the bites of venomous serpents. The *Psylli* always sucked the wound, according to Celsus. It is well known that when Cato commanded an army in Africa, he hired and attached to his camp a certain number of these wound suckers; and it is recorded by Suetonius, that Augustus ordered the *Psylli* and *Marsi* to suck the wounds of Cleopatra, with the vain hope of restoring her to life, when she had just expired from the bite of a serpent. Redi follows Celsus to the letter—and Boerhaave, under the head *ANTIDOTA*, observes that poison may be removed from the body by various means—“ in our days,” says he, “ *hodie per cucurbitulas magnas, validas, sæpe renovatas.*” He was among the last of the mechanical physiologists; for, about this time, the supporters of vital action and the absence of direct experiment upon living animals, produced a total change in the doctrines of external absorption. To the lymphatics this office was exclusively attributed, whilst the sanguiferous veins were refused all participation in this function. The consequent revolution which the treatment of poisoned wounds underwent was equally remarkable. The cupping-glass was laid aside as too mechanical. The lymphatics had taken up the poison by a peculiar *vital principle* inherent in them—their action must, therefore, be modified. Stimulants must be given to induce the exhalents to throw off the morbid matter—irritants must be applied to the wound, on the

principle "*ubi stimulus ibi affluxus*"—the discharge was to be kept up by every possible means, whilst the vitality of the absorbents was to be destroyed by caustics. The knife and the hot iron was sometimes used;—but more frequently by the unlettered cow-leech than by the learned physician. From the days of Celsus to the present, Dr. Barry has not been able to meet with any record of a fair trial having been given to the application of the vacuum, either to the bite of the rabid dog, or venomous snake, although every author who has alluded to either of these subjects invariably mentions *cupping*, but merely as a secondary remedy. Orfila recommends *cupping* as a preventive measure in the bite of a mad dog, but does not mention it in the recent bite of the viper. Majendie and his followers do not appear to have founded any new mode of treatment on the doctrine of imbibition—and how far the injection of tepid water into the veins of animals labouring under hydrophobia may prove conducive to their recovery, is at present doubtful.

As a short resumé we may say that, from the times of Machaon to Celsus, we find but few and imperfect traces of any theory of absorption, while the treatment of poisoned wounds was hidden and disfigured by religious absurdities of the day—that from Celsus to Boerhaave, the blood-vessels were considered the channels of absorption, and to these vessels, therefore, the curative and preventive treatment of poisoned wounds was chiefly directed. The ideas that have prevailed since Boerhaave are sufficiently known—and now we appear to be coming back to the *practice* of Celsus, as well as to his doctrines.

"Yet, notwithstanding this, and many other modes of treatment equally inefficient and absurd, the plan of cure pursued by Celsus in cases of wounds inflicted by poisoned weapons, or by rabid or venomous animals, was beyond all comparison more successful than the mode of treatment adopted by the best physicians of the present day." 92.

A failure in preventing the ill effects of the bite of a venomous serpent, when suction had been continuously employed, was considered so remarkable, that Elianus recorded such an event in the case of a mountebank who was bitten in the arm by an aspis, and who died though he sucked the wound himself. It was recorded that the gums and palate of the mountebank mortified before his death. It is, therefore, probable that some ulceration existed in his mouth, which occasioned the failure.

In the second chapter of that part of Dr. Barry's work

which treats of absorption, he enters into the questions whether this process can be strictly called a vital function—why it cannot take place *in vacuo*? Concluding that the immediate causes or circumstances indispensable to the accomplishment of absorption, are—*First*, A free communication between the matter to be absorbed and the thoracic cavities—*Secondly*, Atmospheric pressure, modified by the expansion of these cavities around one end of the communicating tubes, while the same pressure is free and undisturbed around the other end.

With these data, and granting that both sanguiferous vessels and lymphatics are the organs of absorption, their communication with the thorax being exactly the same as that of the tube in the experiment alluded to, it was natural to presume that the absorption of any substance, as of a poison for instance, could not take place if the points of contact of the absorbing surface and of the matter to be absorbed, were placed under the influence of a vacuum. To put this to the proof our author procured several different kinds of poisons, the fatal activity of which had been well ascertained, such as prussic acid, strychnine, upas tieuté, arsenic, &c. With these and other poisons he experimented on rabbits and dogs, having generally two animals placed under exactly similar circumstances, except that the piston cupping-glass was applied to one, whilst the other was abandoned to his fate. The animal abandoned invariably perished within the periods stated. The animal to which the vacuum was applied never shewed the slightest symptom of poisoning, although the deleterious matter remained in contact with the wounded surface during the space of an hour, two hours, and even so long as five hours consecutively.

“ When the poison was conveyed by means of a tube under the integuments to some distance from the opening by which it had been introduced, if the cupping-glass was applied to the sound skin, corresponding to the spot where the poison had been deposited (the wound being without the bounds of the vacuum,) not only was there no indication that any portion of the poison had been absorbed during the application of the glass, but even after it was taken off the animal continued for one or even two hours to carry imbedded in his cellular tissue a dose which would infallibly have destroyed him in a few minutes had the cupping-glass not been previously applied.

“ In these cases, when I waited for the appearance of the tetanic convulsions, the reapplication of the glass immediately suspended them, and the removal of the poison through an incision in the integuments saved the animal.

“ When I applied the cupping-glass over the opening made in the integuments for the purpose of introducing the tube, leaving the poison

under the skin outside the bounds of the vacuum, no absorption took place during half or three-quarters of an hour, but as soon as the glass was removed absorption began.

“ If, during the application of the glass, I made an incision between its edge and the point where the poison was placed under the integuments, absorption went on as if no vacuum were applied.” 102.

A number of experiments made before some of the most eminent professors of Paris are next detailed, in proof of the foregoing statements, and for which we must refer to the work itself. Professor Laeunec, who witnessed most of these experiments, drew up a report, in which, after recapitulating the principal ones, he comes to the following conclusions :—

“ 1st. Your committee is therefore of opinion that Dr. Barry’s experiments (being the continuation of those by which he has already endeavoured to prove that the venous circulation is carried on principally under the influence of atmospheric pressure) establish, in the most incontestible manner, the influence of this agent on the circulation of the absorbent vessels, the proposition which the author sought to demonstrate.

“ 2ndly. That the knowledge of this important fact may be considered as a *real discovery*, notwithstanding the theoretical views and vague ideas entertained by some authors, and the empirical administration of suction to poisoned wounds, a practice more common with half-civilized people than more polished nations.” 114.

The next suite of experiments are of a still more interesting nature, as exhibiting a still more direct application of this method of preventing poisoning by external absorption. Our author procured a considerable number of vipers from Grenoble and Fontainebleau, and had several dogs and rabbits bitten by these animals. To the bites of some he applied the cupping-glass—to the bites of others nothing; and, although the animals abandoned did not ultimately perish, the results obtained by the comparison were precisely analogous, as far as regarded the symptoms, to those observed in the preceding experiments—that is, the animals bitten by one, two, and sometimes three vipers, when the cupping-glass was applied for half an hour, suffered no symptom whatever of constitutional poisoning; whilst those that were left to nature were invariably attacked with convulsions, stupor, and the dogs by vomiting. Pigeons invariably perished from one bite of the viper, the fatal symptoms generally commencing before the end of the fifth minute; but, when the cupping-glass was applied immediately after the bite, they not only shewed no signs of having absorbed the venom while the glass remained on, but eventually escaped when the treatment to be noticed hereafter was adopted. We

shall introduce a couple of experiments on the bite of the viper, which will give a good idea of the whole.

“ On the 29th of September, 1825, in Baron Cuvier’s anatomical laboratory, where, with his usual condescension, he was kind enough to permit me to avail myself of the talents and dexterity of M. Rousseau, Jun. one of his principal preparators, a large viper was applied* to the thigh of a half-grown weakly rabbit. The reptile bit twice: a minute drop of blood marked each puncture made by the fangs. One minute after the bites the piston-glass was applied upon the bitten part. M. Rousseau, who held his eye close to the glass whilst I worked the piston, observed a drop of transparent amber-coloured liquid issue from each of the punctures. This was followed by a considerable quantity of reddish serum, which rose into a thin froth, and in fifteen minutes nearly filled the glass with its large transparent bubbles. The vacuum was kept up for thirty-five minutes. When the rabbit was set at liberty he appeared to suffer no inconvenience: the little wounds presented nothing remarkable.

“ One hour after this rabbit had been bitten the same viper was presented to the thigh of another, which he bit twice also, drawing blood, as before. The second rabbit was larger and much stronger than the first. A pale yellow spot was noticed almost immediately around each puncture made by the fangs. When the animal was set at liberty the bitten leg appeared slightly paralyzed. Ten minutes after the bite, the whole integuments of the bitten part appeared livid. Half an hour after, the lividity was intense, and had extended to the circumference of half a crown.

“ The next day an open gangrenous ulcer occupied the whole of the livid circle, discharging a fetid sanies. The leg and thigh were swelled. Forty-eight hours after the bite, the ulcer was still open, but not so fetid. Seventy-two hours after the bites, the ulcer looking healthy, the limb reduced.

“ During all this time, the rabbit first bitten never showed the slightest symptoms of either local or general poisoning. The second rabbit refused his usual food during the first thirty hours after he had been bitten, and looked dull.” 125.

The second example which we shall introduce is selected on account of a precautionary measure of considerable importance which is there detailed.

“ On the 24th October, two adult rabbits were bitten, each by three vipers, and by each viper three times. To one of these rabbits I applied the cupping-glass, which was left on thirty minutes. In this, as in No. 16, I observed a considerable quantity of serous fluid ooze

* M. Rousseau applied the vipers by seizing them with a long forceps behind the posterior projecting angles of the head, and placing their nose in contact with the part intended to be bitten, they never failed to bite as often as we wished.”

through the skin, and afterwards expand into thin froth with very large bubbles, filling the glass. I now dissected out the skin and cellular substance which had been included under the glass, applying the vacuum again for ten minutes; after which the wound was washed and the lips of it brought together by suture. The rabbit when set at liberty appeared to be in perfect health.

“ The other rabbit had been left to his fate. On the 25th, at five in the afternoon, the cupped rabbit was as well as if nothing had happened to him: the wound in the thigh looking exactly as if it had never been touched by a viper’s tooth, and inclining to heat.

“ The rabbit that had been left to nature hung his ears, and looked very dull: the bitten thigh was much swelled, whilst a large gangrenous livid phlyctena, filled with a thin sanies, occupied the whole of the bitten part.

“ On the 27th, the cupped rabbit in excellent health: the wound healing without any appearance of gangrene. The phlyctena in the other rabbit had degenerated into an extensive fetid ulcer. This animal after much suffering finally recovered.” 129.

From these and many other experiments, whose results were so uniform, our author comes to the following conclusions, which we cannot abridge without detriment, and, therefore, shall give them in the words of Dr. Barry.

“ *First.*—That neither sound nor wounded parts of the surface of a living animal can absorb when placed under a vacuum.

“ *Second.*—That the application of the vacuum by means of a piston-cupping-glass placed over the points of contact of the absorbing surface, and the poison, which is in the act of being absorbed, arrests or mitigates the symptoms caused by the poison.*

“ *Third.*—That the application of a cupping-glass for half an hour deprives the vessels of the part over which it had been applied of their absorbing faculty, during the hour or two immediately succeeding the removal of the glass.†

“ *Fourth.*—That the pressure of the air forces into the vacuum, even through the skin, a portion of the matter introduced into the cellular tissue by injection; that is, if the skin of the animal be not too dense, as in the dog. (Exps. 16, 20.)

“ From these facts we again arrive at the conclusions already established by the experiments detailed in Part I., viz.,—

1st. That *the taking up* of matter from the surface by the sanguiferous and lymphatic vessels, and the progression towards the heart of the contents of these vessels, are placed under the influence of atmospheric pressure, in all animals possessing thoracic cavities, and exercising over them the power of alternate contraction and dilatation around that point to which the centripetal current of their circulation is directed.

“ 2d. That, as the veins and lymphatics communicate with the tho-

“ * Vide Exp. No 4.”

“ † Vide Exp. No. 5.”

racic cavities nearly in the same manner, the cardiac ends of both must be exempt from atmospheric pressure when the thorax is expanded, and therefore the pressure on the surface and extremities of these vessels being unresisted at this moment, except by gravitation, must not only press their contents upwards, but also force matter from abroad into their open mouths, or porous sides, when stript of their more dense coverings.

“ 3d. That as the height of the column of lymph exceeds that of the column of blood in the lower cava, by the distance from the lower point of the right auricle to the upper part of the subclavian vein in man, and as the course of the lymph is more tortuous and indirect (from passing through glands) than the course of the venous blood; it follows, that the velocity of the transport of matter from the surface to the centre, must be less in the lymphatic, than the sanguiferous veins, and that the comparative quantity transported by the two sets of vessels must be influenced by the circumstances already noted, and by the relative capacity of the vessels themselves. The difference in the specific gravities of blood and lymph should, perhaps, be also taken into calculation.

“ 4th. That as *imbibition, transudation, or passive soaking* of a part in a liquid may take place *in vacuo*, neither can be the agent which induces or compels matter deposited on the surface to penetrate into the cavities of the veins; for although the cupping-glass may arrest the current of the circulation in the smaller vessels during the period of its application, and even for some time after its removal, yet if imbibition could force the poison, which had been lying in the wound for hours, into their tubes, the washing of the part after taking off the glass would not save the animal from the effects of a substance which with the simple contact of the atmosphere would have killed him in a few minutes.” 137.

In the succeeding chapter Dr. Barry makes some interesting remarks on the comparative absorbing powers of the different tissues—on morbid poisons—and on contagion and infection. He thinks it may be inferred that the absorbing powers of the tissues stand in proportion—*first*, to the pressure to which their veins are exposed—2d, to the freedom of communication with the thoracic cavities—3d, to the permeability of the mouths and coats of the veins—and, lastly, to the number of the veins. Accordingly we find that the membrane of the air-cells of the lungs absorbs with the greatest rapidity, because it unites in the most perfect degree the above conditions. Its veins are the most numerous—their communication with the central cavity of the thorax is the shortest and most direct—their coats are the most pervious—whilst their contents are forced forward by the whole pressure of the air rushing down the trachea during inspiration. Experiments illustrative of these observations will be found at pages 139-40 of Dr. Barry’s work.

At the opposite extremity of the scale of absorbing tissues stand the osseous, fibro-cartilaginous, and epidermoid. In these

there may be imbibition, but not absorption. Between the extremes of the scale may be ranged the subcutaneous cellular tissue—the mucous and the serous membranes. The conjunctiva absorbs freely, its vessels being numerous, and their coats thin.

“ These experiments,” observes Dr. B. “ account for the communication of disease without contact. The infective matter of small-pox is more abundantly and more fatally taken into the system by breathing the atmosphere of the variolous, than by inoculation—the plague, by inhaling the effluvia of the pest-house. In short, whatever poison is capable of being suspended or dissolved in the air as a menstruum, must inevitably pass into the blood of those who respire this air thus infected. ‘ Qui cum non respirare non possunt, contagium miseri, evadere nequeunt.’ ”* 143.

Some poisons, as the vaccine virus, and most of those peculiar to brutes, are incapable of being dissolved in the atmosphere, at least in sufficient quantity to produce their usual effects. Others cannot be so concentrated as to affect the system through any other surface than that of the air-cells, such as the deleterious gases and effluvia. Some, again, are capable of infecting through all vascular tissues, though most fatally through the lungs, as the virus of small-pox and plague. In all cases, however, there is one common and indispensable condition, viz. “ the contact of the poison with the surface through which it is to pass into the circulation.” This circumstance, which we have always insisted upon, might check a little those noisy and minute distinctions which are eternally buzzing in our ears between contagion and infection—since they both come to the same thing in the end. The following passage contains sound reasoning.

“ If one infected individual cannot furnish enough of virus to charge the atmosphere around him with the seeds of his disease, we know that a greater number can ; and if the air be not disposed at one time to hold these germs suspended, we know that at other times it is so disposed. Therefore, whilst men have lungs constructed as these organs are at present—whilst the mucous surface of these lungs are exposed to the contact of every thing the atmosphere holds in solution—and whilst it is certain that the most fatal poisons may be thus deposited on the most rapidly-absorbing tissue of the whole frame, the healthy should be carefully and distantly separated from the infected ; nor should they ever, under any circumstances, respire the air which the emanations from the latter may have poisoned.

“ From what has been said on the subject of specific morbid poi-

sions, may be seen the incorrectness, nay, even the dangerous tendency of the distinction lately attempted to be established by some writers, between *contagion* and *infection*." 146.

Dr. Barry suggests (and we have no objection to the proposal) that, as the word *infect* and its derivatives clearly convey the idea of something noxious introduced into the system, without quibbling or ambiguity, they should, in sanitary logic, supersede the word *contagion* and its adjectives.

The sixth and last chapter of the work under review, is on the application of the foregoing principles and experiments to actual practice, in the treatment of poisoned wounds. The measures on which he comments are confined to such as are entirely physical and external. These are, 1mo. The ligature between the wound and the heart—2ndo. The cupping-glass or vacuum—3tio. Excision or scarification—4to. The actual cautery—5to. Protection from atmospheric pressure.

" 1. In all cases of superficial poisoning, when the deleterious matter is simply deposited in the wound, the application of the cupping-glass over the point of contact will save the individual, provided it be made with the precautions to be noticed hereafter, and before a dose sufficient to cause death shall have been absorbed.

" 2. In cases where the poison has been injected, as, for instance, by the hollow fang of a viper or rattle-snake, though the cupping-glass may have been applied, yet as the local action of the venom goes on in *vacuo*, the parts acted upon should be cut out after the venom has been concentrated and partly extracted by the cupping-glass, which should be immediately reapplied over the wound made by the knife, for the purpose of extracting the contents of the newly-divided vessels from a greater distance than could be done before the operation. After this the actual cautery may be administered, if thought necessary; but never under any circumstances before the second application of the cupping-glass, for this reason,—that when the mouths of the vessels are hermetically sealed by the hot iron, they can give out nothing to the vacuum.

" 3. The poisoning that results from the bite of a mad dog, so far as regards the simple deposition of the deleterious matter in the wound, and the total absence of local action upon the wounded tissues, comes strictly under the first, or least complicated class of cases. But the tardiness with which the poison is absorbed, or if absorbed, with which it produces its peculiar effects, entitles it to be considered as a species *sui generis*.

" Fortunately this anomaly does not alter the preventative indications. These are purely physical, and as such must be ever unvaried. The first thing, then, to be done in treating the recent bite of a rabid dog is to apply a powerful cupping-glass over the wound. This measure supersedes at once the ligature, ablution, excision, &c. during the period

of its application, and for a certain time after its removal.* 2. After the cupping-glass has been applied for an hour *at least*, the whole of the parts wounded or abraded by the bite should be freely dissected out. 3. The cupping-glass should then be reapplied immediately for the reasons already stated. 4. The wound should next be hermetically sealed by the actual cautery. 5. The part should be as little exposed to the contact of the air after the slough comes away, and as soon healed up, as possible." 150.

If the first application of the cupping-glass shall have so concentrated the poison, as that the excision of the part will remove it—or, if the second application shall have recalled such particles of it as may have been forced into the wounded vessels too far to be reached by the knife, but not beyond the limits of the influence of the vacuum, "the individual will be as secure against hydrophobia as if he had never been bitten." This, of course, is on the presumption that the nerves have nothing to do with the hydrophobic poison—a presumption which we believe to be correct. But still, as no experiments have been yet made on this curious and fearful poison, we think Dr. Barry is hardly authorised to make so confident an assertion as is contained in the foregoing passage. Dr. Barry thinks that the notion of the hydrophobic poison being absorbed in the usual manner, but lurking in the system for some weeks before it produces its peculiar effects, is contrary to all analogy. He believes it is with the rabid poison as with others—namely, that "the commencement of the symptoms is synchronous with the consummation of the absorption—and that their repetition is dependent upon its renewal." Certainly the idea of the removal of the poison in the wound is strengthened by the *general* occurrence of inflammatory symptoms in the part a few days previous to the explosion of the constitutional affection. But in very many instances there is no local warning of the dreadful scene which is at hand.

"Under the presumptive impression, then, that in hydrophobic, as well as in all other species of poisoning, the transport of the deleterious matter from the wound into the system, and the appearance of the symptoms peculiar to the poison, follow each other as cause and effect—as soon as the cicatrix begins to feel at all tender, or when there is sufficient evidence that the animal which inflicted the bite was rabid, we should immediately apply the cupping-glass, and proceed exactly as in the case of a recent bite; nor should the actual presence of hydrophobia deter us from this proceeding, any more than the presence of tetanic spasm in repeating the fourth experiment." 153.

It may be asked how it is that the cupping-glass should rank so low in the cure of poisoned wounds, seeing that its character has stood unimpeached since the days of Celsus? Dr. B. thinks that the answer is to be found in our ignorance of the mechanism of absorption, and our never having suspected that it was connected with atmospheric pressure. It is probable, too, that failure with the cupping-glass was attributable to improper interference with the poisoned wound—an interference which originally consisted in scarifications—actual or potential cautery—free exposure to the air. It is evident that the more exclusively the pressure is directed to the wounded surface, and the little vessels connected with it, the greater will be the probability of their contents being squeezed out into the vacuum. If scarifications surround the wound this object will not be so well attained. The objections to previous cauterization are so obvious that we need not dwell on them here. The only precautionary measures, previously to the application of the vacuum, are, according to our author, the ligature, not too tight, between the wound and the heart—simple ablution of the part—protection from contact with the air. “Even these measures are only to be used when a cupping-glass or suction by the mouth cannot be immediately commanded.” We apprehend, that in these days of selfishness, few suckers of poisoned wounds will be found:—the cupping-glass, therefore, should be in the ready possession of every one—especially of the medical profession. Excision and the cautery can be of use only in proportion to their extent. If they reach beyond the poison they will certainly save, but not otherwise. The particles of poison which may have been already forced further than the boundary of the excised wound, will be sent to the heart with greater rapidity after the operation than they otherwise would have been (as was proved by Fontana) owing to the wider mouths of the vessels being now fully exposed to receive the atmosphere within their cavities. The following passage concludes the work.

“When the cupping-glass has been applied for an hour to the poisoned part, previously to removing it with the knife, the contents of all the vessels will have acquired a retrograde direction, and from not being permitted to flow freely into the vacuum, a perfect stasis of the fluids is established; hence the loss of the absorbing faculty of the cupped surface already noticed. (Experiments 5—7.)

“Thus by allowing the first cupping to precede the excision of the part, not only is there a greater quantity of the poison removed, but the danger of a more rapid absorption is avoided, whilst the certainty of extracting a still further portion, or, perhaps, the whole of what may have

remained, constitutes an additional and important advantage to be obtained by the second cupping.*

"The advantage to be derived from the actual cautery, after the excision and second cupping, is also of a strictly physical nature. The burning of the little vessel hermetically closes its mouth, and renders its tube incompressible for a certain extent. Its absorbing powers, therefore, are suspended, because the pressure of the atmosphere can neither force any thing into it, nor compress it upon its own contents, so as to force them forward towards the heart." 159.

We have given such an ample analysis of Dr. Barry's work—especially that part of it which relates to absorption and poisoned wounds, that it would be quite superfluous to say any thing of its merits in conclusion. We confess that we are not converts to our ingenious author's theory of the circulation in the veins—and, consequently, in the absorbent vessels:—but, we nevertheless fully believe in the great utility and efficacy of the application of cupping-glasses to poisoned wounds. Whatever may be the power which causes the contents of veins and absorbents to go forward, under ordinary circumstances, towards the heart, there can be no doubt that the removal of atmospheric pressure from the mouths of these vessels when wounded, will cause a retrograde motion of the substances contained in them. The theory of absorption and venous circulation may be wrong, while the application of that very doctrine to practice may be very right. Under this impression, we beg to add our mite of approbation to that which the talented author has already so largely received abroad—recommending, in the strongest terms, the profession to procure for themselves the work, in order that they may be in complete possession of Dr. Barry's views—experimental—doctrinal—and practical,

* Experiments 22, 23.

II.

A Case of Melanosis, with General Observations on the Pathology of this Interesting Disease. By THOMAS FAWDINGTON, Member of the Royal College of Surgeons, London, and one of the Surgeons to the Manchester Lying-in-Hospital. Illustrated by Coloured Lithographic Plates. 8vo. pp. 49. Longman & Co. May, 1826.

IN a very modest and unassuming preface, Mr. Fawdington informs us that the following case was originally drawn up for insertion in one of the periodical journals; but, owing to the advice of friends, and the inadequacy of mere verbal description to convey an accurate notion of morbid appearances, together with the interesting peculiarity of the disease in question, he has been induced to adopt the present mode of publication. No graphic illustrations of melanosis have been attempted, we believe, in this country, and but few on the Continent; and it is but justice to say, that the plates, in the present work, are admirably executed, and highly calculated to convey a most accurate idea of a disease with which the eye of the practitioner is but little familiar—though instances of the complaint are not exceedingly rare, as our journals have lately proved. Melanosis is sometimes passed over as a strange and anomalous appearance, not understood, and we think the graphic delineations in this book are perfectly adequate to prevent all misapprehension or mistake on such occasions in future.

Melanosis has but recently attracted the notice of the profession, though some faint traces of the disease are scattered in the works of Morgagni, Haller, and Bonetus. Bayle, Laennec, Dupuytren, and Breschet have accurately described this morbid state in France, and several cases have been published in this country—one of which, by Dr. Gregory, will be fresh in the minds of our readers. “No where,” says our author, “has melanosis been observed presenting a more complete and unmixed character than in the case which occupies the following pages,” and to the particulars of this case we shall now direct our attention,

Case. Thomas Peckett, aged 30, a robust and healthy looking man, a carder in a cotton mill, consulted Mr. Wilson, senior surgeon to the Manchester Eye Infirmary, in January, 1824, respecting a violent and incessant pain in his left eye, on

which organ he had received a blow by a piece of iron six months before. A fortnight after this accident he experienced a sensation of fulness in the globe, and the sight had become affected. These symptoms gradually increased—the conjunctival vessels became enlarged, tortuous, and fasciculated—the sclerotic inflamed and attenuated—the dark choroid becoming visible—the iris dilated and immoveable—and a slate-coloured opacity occupying the centre of the pupil. The usual means were resorted to, but without any other good effect than the removal of the pain. In the latter end of March, the pain again returned, and deprived the patient of sleep. The disease had now made considerable progress, and it was feared that the pain was owing to a morbid growth in the globe of the eye. The sclerotic at the upper part was very much attenuated—the opaque appearance in the pupil had assumed a dirty red colour, and seemed the apex of a conical-shaped body situated deep in the eye. The former treatment, with moderate ptyalism, was ineffectually adopted, and on the 19th April, Mr. Wilson removed the contents of the orbit.

“ A section of the eye-ball discovered a black pultaceous tumour occupying more than one half the interior of the globe, in the situation of the vitreous humour, of which last named part, no trace could be discovered. There were two cavities or cells filled with a brownish red fluid, one situated at the side of the tumour, the other anterior to it and behind the lens. No trace of the vitreous cells could be discovered. The tunica choroides was entire, and could easily be drawn up from the sclerotica, except at one point towards its superior and internal part, where it ceased to be distinguishable from the general mass of the tumour. The sclerotica was here reduced to an extreme degree of tenuity and had a split appearance. The retina was quite detached from the choroid by the interposition of the disease, and laid folded across the globe, forming a kind of septum between the black mass and the larger of the two cavities containing the brownish red fluid. The lens was opaque and of a yellow hue, the capsule thickened, but partially transparent; a fold of retina covered the posterior capsule or that fold of the hyaloid which lines the vitreous fossula for the lodgment of the lens. The ligamentum ciliare was distinct, and some ragged portions of membrane at the margin of the lens and posterior to the iris, which was perfect, shewed a remnant of the ciliary processes. The optic nerve, where it had been divided at the time of the operation, appeared to be sound.” 9.

The patient recovered from the effects of the operation, and returned home in a month, apparently well. But in August following he came back, with three or four tumours on the face, about the size of a leaden shot, perfectly black in colour, but

unattended with pain. He had difficulty of breathing, stitches in his side, and a short cough. He had evidently wasted in flesh, and his pulse was quick and sharp. A tumour similar to the others was discovered on the back, between the scapulæ, and in a few days more one or two appeared on the scalp. He was now sent to the Manchester Infirmary under Dr. Home, where he remained a fortnight, and then requested his discharge. On the 2d October he came under our author's care, and the following was his condition at this time.

“ The general aspect of the patient indicates a deficient supply of nutriment, or an imperfect appropriation of it to the purposes of the system. The surface is pale and exsanguineous, and there is a considerable degree of muscular emaciation with œdema of the legs. But the most striking feature of the case is an exceedingly protuberant abdomen, apparently from enlargement of one of its viscera, and this probably the liver. The tumour seems to occupy a great part of the abdominal cavity, reaching from the right to the left side and down to within an inch and a half of the pubes, where its margin can be distinctly traced. It has an irregular, tuberculated feel, is firm and unyielding over the principal extent of its surface; but the prominences of the supposed tubera possess a slight degree of elasticity. Pressure occasions little suffering; yet the patient complains of transient pains affecting both the chest and belly. He states, that, a few weeks back, he experienced a sharp pain in the left hypochondrium, darting up to the shoulder, which subsided spontaneously in the course of two or three days. He complains of a sense of weight and distention, and, indeed, his chief distress appears to arise from the mechanical influence of the swelling. The breathing is a little restrained, but there is no actual dyspnœa, and the cough which is present scarcely claims the notice of the patient. Posture somewhat affects him; he expresses himself to be easier, and his respiration freer, leaning forward at a slight angle, than when erect or in a reclining or horizontal position, though he can assume the latter without much inconvenience. The expectoration is inconsiderable, and what is brought up looks like mucus unchanged. There is less active derangement of the alimentary functions than we should have predicted, reasoning from the rapidity and extent of the hepatic disorganization. The appetite is mostly unimpaired, and the ingesta produce no disturbance to the stomach. A diarrhœa, however, harrasses the patient, but it is unaccompanied by its usual associates; and the dejections, though described as variable, are, at present, sufficiently bilious and by no means ill digested. The secretion of urine is remarkably scanty, and this fluid presents a very peculiar appearance. When emitted, it has an uniform moderate red or purple colour; but by allowing it to stand some hours, a chocolate-coloured precipitate forms, leaving the supernatant fluid of a deep amber hue. Neither heat nor the nitric acid produces any visible change upon it.

“ Little constitutional irritation prevails. The pulse is, indeed, some-

what accelerated, and the patient complains of transitory febrile paroxysms, which return without any assignable cause, at indefinite periods, and terminate by sweating. The tongue is clean, perhaps morbidly so, and there is some thirst.

"The face and scalp display several perfectly developed melanose tubercles, and one, on the lower lid of the extirpated eye, appears to be on the verge of ulceration, if the simple breach of its cuticular and only envelope would constitute such a state. The bottom of the orbit is free from any visible melanose deposition.* In every other situation, excepting two or three points on the trunk, the texture of the cutis has escaped the direct invasion of the disease; but the subcutaneous tissue, over the whole chest and abdomen, is evidently loaded with the morbid production which characterises melanosis; giving rise, where the cysts encroach on the skin, to faint blue elevations, more or less distinct, and of various sizes; none, however, exceeding the fourth of an inch in diameter." 14.

From this period till the 29th of the same month, the system had been gradually declining—the constitutional phenomena putting on the character of regular hectic, with colliquative perspirations, and pulse constantly above 100. The cutaneous cysts appeared to be stationary, but the sub-cutaneous were on the increase. On the 3d of November, he started suddenly from his bed in the night, being menaced with suffocation, and soon afterwards expired. The following extract is long; but we cannot possibly convey in words of our own so accurate an account of the morbid appearances in this remarkable case, as is contained in the description of our author.

"*Autopsia Cadaveris.* The body was examined nine hours after death. By making an incision from the upper part of the sternum to the symphysis pubis, and throwing back the skin, on each side, we displayed a considerable extent of the cellular and adipose textures, beautifully granulated with melanose matter; and this, at various intervals, was disposed in masses, up to the size of a small pea, all of which were inclosed in a delicate transparent cyst. Many of the largest were partially embedded in the cutis; but were held there by such slender adhesions, that the point of the knife easily dislodged them, leaving the cutaneous tissue attenuated, but otherwise unchanged. It is singular that the cellular medium of the subjacent muscles exhibited scarcely a vestige of this deposit. The remainder of the integuments was now divided, in order to expose the cavity of the abdomen. After clearing away about two quarts of bloody serum and some coagula,

* "I wish to be understood as applying this word (which is employed for the convenience of description) only to express a certain state, without any reference to the mode in which it is effected."

which had gravitated to the pelvis, we directed our observation to the liver. This viscus, completely altered in figure, was augmented to at least four times its natural magnitude; extending, laterally, to the utmost limits of the cavity, and effectually concealing the other viscera, except in the hypogastrium, where a few turns of the ilium, covered by omentum, protruded. In some places, its surface was merely undulated; in others, extremely uneven, in consequence of a number of dark blue circumscribed projections, of which the most voluminous would measure four or five inches over the summit to the base. Many of these appeared to be made up of a congregation of smaller tumours; yet, others were independent, and had probably been so from their origin. The intermediate spaces shewed little of the natural hepatic texture; its colour was converted into a faintly reddish brown, speckled with black; and in the sulci or hollows, caused by the neighbouring prominences, as well as on the surface of the more capacious tubera, the peritoneum was somewhat opaque, and, here and there, rather more vascular than usual, though in no conspicuous degree. The liver was remarkably tender and lacerable, particularly where the disorganization was most complete, so that we could not, without the utmost care, avoid breaking down its structure, in the attempt to separate and remove it. The cause of my suspicions as to abscess, now became explained; for directly opposed to that point of the umbilicus, which was the seat of my observations, we found a large tumour, projecting considerably beyond the rest, with contents sufficiently softened to convey to the finger a sense of fluctuation. It adhered slightly to the adjacent surfaces; but it is remarkable that no other morbid adhesions were discernible throughout the peritoneal cavity. On making a section of the liver, which included one of the principal tubera, several ounces of a homogeneous dark-coloured matter flowed out, bearing a near resemblance, both in look and consistence, to deep chocolate paint. We found that this product had been generated, or at least contained, in slender membranous cysts, of from one to three inches in diameter, with which the substance of the organ was beset, and that the degree of fluidity, which was most elaborated in the centre, seemed to hold a nearly direct relation to the compass of those cysts. There was besides a great number of smaller tumours, consisting of a similar but more compact material; and these, too separate or coalescent, were for the most part, bounded by a well defined cyst. In some situations, however, there was a *partial* transmutation of the parenchyma of the liver, within a circumscribed space, which appeared to be determined by the simultaneous formation of a membranous boundary, as will be seen by referring to Plate 4. In others, again, the black matter was disposed interstitially, and in a diffused manner, so as to be intermingled and confounded with the surrounding substance; and, indeed, the whole remaining hepatic structure, which was cognizable as such, betrayed a strong tincture of melanose disposition, presenting a light brown or clay-coloured ground, interspersed with innumerable dark blackish points.

“ The gall-bladder was almost buried in the disease; yet it contained

its ordinary quota of fluid, in no way distinguishable from healthy bile, and its coats appeared free from any morbid deposition.

“ We found the peritoneum lining the walls of the abdomen pretty generally marked with the disease ; immediately, in the form of minute dots ; and from proximity with the subjacent cellular tissue, in which case, the membrane was thinned, and formed but a partial envelope to small rounded tubercles, similar to what were observed in the skin. The peritoneum was elsewhere comparatively exempt from melanosis ; although the reticular tissue, which united it to the subjacent structures, and connected its duplicatures, was universally pervaded by it. Along the sides of the spine in the course of the sympathetic ganglia ; upon the concave surface of the diaphragm ; in the adipose texture embedding the kidneys and their vessels ; between the layers of the mesentery and mesocolon ; and in the omentum, there was an abundant distribution of black matter, assuming various shapes, but principally, granular and ovoid.

“ The pancreas, spleen, and kidneys were thickly studded with melanose bodies, some of which, especially in the pancreas, had attained the size of a Spanish nut ; and we observed several patches of the same deposition beneath the serous tunic of the stomach and intestines. The former viscera were slightly increased in bulk, but preserved their respective organic characters ; excepting the kidneys which were paler than usual, and in which, more particularly near the centre, the cortical and tubular divisions merged in one apparently similar structure, and this deviating from the healthy cortical only in having a weaker cohesion. At one extremity of the gland, the tubular substance looked natural ; and this was the only part where melanosis had not intruded itself.

“ We could distinguish no traces of the disease in the nervous textures submitted to examination ; viz. the sympathetic and semilunar ganglia, and the trunks of the anterior crural and great sciatic nerves.

“ The vessels, too, were free from the taint of melanosis ; of which, were inspected the aorta and vena cava with their principal divisions.

“ What was the nature of the lesion, which had given rise to the extravasation of blood before alluded to, we could not ascertain ; for the circumstances, under which the inspection was conducted, precluded the adoption of any minute steps to determine this and some other desirable points.

“ The thorax was next examined. On raising the sternum, of which the posterior surface was superficially spotted, we met with a considerable quantity of melanose tubercles lying in the cellular texture of the anterior mediastinum ; but they abounded most on the exterior of the pleura costalis. On the inner surface of this membrane, as well as the pericardium, the deposit had assumed a different arrangement, being striated and so decidedly interstitial, as to form no perceptible elevation or irregularity when the finger was passed over it. The pleura investing the lungs was affected in another manner ; a great number of circular or oval flattened tubercles, included in a fine transparent cyst, and attached by a slender hair-like pedicle to the subjacent membrane, was seen lying upon these organs, being congregated in some places, so as to

resemble clusters of dried currants, and in others, apart and insulated, in which the filamentous attachment was especially observable. This portion of the pleura was likewise dotted interstitially, and was a little raised by the melanose bodies situated beneath it. The pulmonary substance was crepitous and had undergone no other change than in being the seat of a lightly scattered deposition, which imparted to it a carbonaceous appearance; and, here and there, though not in large quantity, the matter of melanosis was distributed in an encysted form. In no part of the chest were there any unnatural adhesions; nor did the cavities contain more than perhaps three ounces of a limpid serum. The trachea and its bifurcations presented no traces of the disease.

“Almost the whole surface of the heart was covered by melanose spots; some of which were raised, some implicating purely the texture of its investing membrane, and others again were evidently subjacent to that membrane; but none were pendent, as on the pleura pulmonalis. Further, this viscus appeared to have retained its original organic properties, only that its fibres were, here and there, separated by the interposition of a small quantity of melanose matter, and this, too, confined chiefly to within the eighth of an inch of its external surface. The membrane lining both the auricles and ventricles was perfectly healthy, and the large vessels had altogether escaped contamination.”—
24.

It is to be regretted that the brain was not permitted to be examined. On closely inspecting the product of the melanosis, it was found to possess an appearance very similar to the contents of a decaying lycoperdon (puff-ball) rendered cohesive by a small portion of liquid. It had a deep brown chocolate colour—was slightly fibrous in texture, and when agitated in water or spirit, deposited, when standing, a pulverulent sediment, the water retaining a deep tinge, but the spirit being scarcely coloured. This substance, in its most compact form, shewed a tenacity equal to that of brain. The softening was most decided in the centre of the largest tubera, and in these, the inner circumference of the cysts was fringed with flocculi of the melanose material, which were connected with it by means of a very fine cellular tissue; and this last formed the bond of union between the cyst and its contents, under all circumstances. The cysts did not present the slightest trace of vascularity, nor was there any visible turgescence in the vessels of the enclosing textures. M. Barreul, a French chemist, thinks the substance of melanose tumours is a deposition from the colouring matter of the blood and of fibrine, each under a particular modification, and forming three different fatty substances. Dr. Henry, of Manchester, analyzed a portion of the softened matter, after it had been kept sometime in spirit, and concluded, from his experiments, that the black matter is a

peculiar secretion, analogous in some properties, to the colouring matter of the blood.

Our author has met with no instance on record where melanosis prevailed so universally, and proceeded with such celerity, as in the case just related. It appears to comprise nearly all the features which this rare and singular malady has been observed to assume in the different textures of the body—and exhibits, to a certain extent, the various modes by which it disorganizes or displaces those textures. It would seem that no tissue is free from the invasion of melanosis; but it attacks some in preference to others, as is exemplified in the foregoing narrative. In its progress, however, it involves, like cancer, the adjacent textures, indiscriminately destroying every thing that might oppose a barrier to its ravages. We shall not enter into any of the speculations which have been formed respecting the nature, or the causes of this dreadful disease, since we do not see that pathologists have yet been able to throw any light upon the mysterious process by which it works its fatal way in the human fabric. Neither need we say any thing of the treatment, since we are totally ignorant of any medicine capable of arresting, or even of retarding, its progress.

We need only repeat our high admiration of the plates, and assure the purchasers of this little volume that they will find in them an admirable delineation of melanosis in all the different structures of the body, and in different periods of its progress. We think the profession is greatly indebted to Mr. Fawdington for the pains which he has thus taken to elucidate an obscure, rare, and fatal malady.

III.

Topographical and Statistical Reports of the Diseases most prevalent in the Different Stations and Divisions of the Army under the Madras Presidency. By JAMES ANNESLEY, Esq. Madras Medical Establishment, &c. 8vo. 1825.

No doubt can exist as to the great utility of reports like these, especially in a widely extended empire like that of the East, where medical officers and troops are often ordered suddenly to stations with which they are totally unacquainted in a medico-topographical point of view. The utility of such reports, however, are not so completely unalloyed as Mr. Annesley

seems to think. The features of a country or a particular station will remain apparently the same, while the prevailing diseases will not only vary, but assume diametrically opposite characters! This fact is so notorious in all countries, that to adduce examples would be waste of time. It ought to check overweening confidence in the most authentic records of the past, and keep us constantly on the watch for that which exists at the moment of our observation. Still it is a great advantage to know what has happened to others in any new place to which we may be sent. History is not useless although no period of it can ever run its course over again.

We cannot touch on the tabular returns and reports of this part of Mr. Annesley's work, but merely glance at the topography and prevalent diseases of the places mentioned below, premising that the period embraced is that between the years 1815 and 1821 inclusive.

Presidency Division. The climate of the Carnatic is dry and hot—the thermometrical range from 75 to 92; but in May and June often rising to 98 and 105. The most disagreeable months, Mr. Annesley thinks, are February, March, and April, when the southerly winds blow. May, June, and July are most healthy, but the hot land-winds of this period are certainly very unpleasant. The greatest degree of sickness prevails from August to November, viz. about the change of the S.W. to the N.E. monsoon.

The prevailing diseases are fever, dysentery, and hepatitis. Dysentery, Mr. A. thinks, is more dependent, in this presidency, upon circumstances than upon the climate. These circumstances are, irregular living, hard drinking—probably exposure to the sun.

The proportion of liver diseases being 25 per cent. at Madras, while in the centre and southern divisions they were only 13 to 15, our author endeavours to account for the circumstance by the practice that exists of sending chronic cases of hepatitis from outstations to the Presidency General Hospital. We are not aware, however, why liver cases in particular should be sent to Madras, and till this information is afforded, we cannot but continue to think that the climate of this Presidency is peculiarly prolific of hepatic affections—a fact that has often been observed by former writers.

Symptoms and Treatment of the Diseases. Mr. Annesley considers the climate and diseases of the Carnatic (including all that space of country situated between the western hills, and

the coast extending from Cape Comorin and the Kisthna river) as perfectly similar, or rather identical.

Fever. This is the synocha of Cullen—being continued and inflammatory, and evinced by full hard pulse, hot skin, suffused eyes, head-ache, and general pains. It is easily checked, “if immediately attacked, and boldly treated.”

“Bleeding, either general or local, according to circumstances, is a safe remedy. It will always be attended with benefit, and should never be lost sight of. The apprehension that blood is not rapidly made in India, is, I fear a fatal error. Such an opinion never can be maintained upon any just principle, though it is a prejudice that exists in a great degree, even amongst those whose field for practice has been considerable. Such fears being sometimes inculcated by men high in office and in power, they cannot fail to paralyse the hands of medical men on their first arrival in India, and they serve to lay the foundation of erroneous notions of practice. The sooner therefore, the prejudice is pointed out the better, as candid and enlightened observation cannot fail of leading to the adoption of juster views.

“Bleeding I consider, in the first instance, as the sheet-anchor in the treatment of this disease, which, when followed up by active purgation, will, probably, in a few days remove it. But purgatives should, nevertheless, be prescribed as long as there is any degree of excitement in the system, and as long as the dejections are viscid, of a dark colour, or otherwise morbid. When the alvine secretions are altered, and become healthy, an alterative course of medicine may then be had recourse to with the best effects.” 265.

Centre Division. This includes Vellore, Arcot, Wallajahbad, Poonamallee, Nellore, and Ongole. The sickly seasons are the same as at the Presidency—the climate nearly the same, but the heat is more felt on account of the want of the sea-breezes. Fever and dysentery are the prevailing diseases—especially the latter, which is the scourge of our troops. It rises in some places to 30—37 per cent!

Dysentery. Our author divides the disease into two varieties—acute and erythematic. “The first is acutely inflammatory, and if not checked by bold and decided practice, will very soon terminate fatally, or lay the foundation for that chronic stage of dysentery which disables so many men, and is the cause of the great number of discharges annually from the service.”

“The cause of dysentery amongst the soldiery in India arises unquestionably more from irregularity and diet than climate; though I admit that, in some instances, the latter is intimately connected with

functional derangement of the liver. The sick-list of a regiment is always increased after pay-day, and dysentery is the general disease. The symptoms are well marked: severe pain in the bowels; straining; full, strong pulse; foul, loaded tongue; motions very frequent, and small in quantity; sometimes consisting of morbid, offensive matter, but generally, in the first instance, of mucus with blood: and it is not unusual to see very considerable discharges of blood from the bowels. Upon examining the abdomen, a very considerable fulness and tension, with great tenderness, are observed, and particularly at the caput cæcum and sigmoid flexure of the colon; the tongue is sometimes white and dry, and the pulse quick, small, and irritable, with general febrile excitement.

“The causes of dysentery being very nearly the same as those of fever and hepatitis, the treatment must be in many respects, also, the same. Dysentery is a disease that requires great decision in the treatment, because much is to be done in a few hours; and if it be not got under control in that time, the patient is either lost, or the basis of a broken constitution is laid.

“The indications of cure are to diminish general vascular excitement, to remove acrid and accumulated matter from the bowels, to allay the irritation of these viscera, and to restore them to healthy action. As this disease is entirely confined to the large intestine from the cæcum to the rectum, attention should be directed to that particular seat; and therefore emollient injections should be used frequently, to clear away any matter that may lodge in it. Leeches should be applied in the course of the colon, particularly when there is tenderness of the abdomen. Calomel, in ℥j. doses, will always allay irritation of the stomach, and should therefore be given, and be followed up by oily purgatives. In full plethoric subjects, general bleeding will always be attended with benefit; but in those who have been long in India, I have found leeches answer better, because they diminish action without destroying power, and any quantity of blood may be taken by them.

“So long as pain continues leeches may be applied, and, till the dejections become natural and healthy, the calomel in ℥j. doses should be given every night, and oily or saline purgatives every morning. Injections in the course of the day will be administered with benefit, and after the pain is removed, if a general soreness continue, a large blister over the whole belly will always be useful.

“In the treatment of dysentery, as well as of all other acute diseases in India, the first twelve or twenty hours are of the first consequence, in order to make an impression upon the constitution, and to bring the disease under control, before serious structural derangement has supervened: when these objects are accomplished, the future treatment may be regulated according to circumstances.

“Local pains may be removed by the occasional application of leeches. Tenesmus, which depends upon inflammation or irritation of the rectum, will be alleviated by anodyne enemata, not exceeding ℥iss. or ℥ij. which will generally remain in the bowel; but calomel, as a purgative, with

oily and sometimes saline laxatives, must be prescribed till the secretions assume a healthy appearance, when tonic laxatives may be given, and continued till the cure is completed." 278.

The erythematic form of dysentery is much more obscure, and consequently more dangerous. The symptoms are, a dull and deep-seated pain in the bowels, sufficient to distress a patient, but not so severe as to excite alarm. There is no external pain—no febrile excitement—alvine discharges morbid and acrid. Mr. Annesley considers the disease as a sub-acute inflammation of the mucous membrane of the colon. "If not treated successfully, it runs into ulceration throughout the whole intestine."

"Full doses of calomel, with such other purgatives as act upon the mucous glands, are required here, and should be continued without intermission, till healthy action is produced. Leeches, and blisters over the abdomen, are always attended with benefit; and the purgative I have found to answer best in combination with calomel, is castor oil and the following bitter aperient mixture,* quickened occasionally by two or three drachms of sulphate of magnesia." 279.

Northern Division. This takes in a tract of country extending from the Kisthna river south, to Ganjam north, on the the Coromandel coast, the principal stations being Masulipatam, Samulcottah, Vizagapatam, Berhampore, &c.

The climate of this district is very pleasant from November till March, the thermometer generally ranging from 72 in the morning, to 88 and 90 in the day. The north-east monsoon being superseded by the S.W. Clouds of dust are flying from the end of March till May. In May and June the land-winds commence, and blow with more or less force till the end of the monsoon. The prevailing diseases are here also, fever and dysentery, which prevail most between August and November, the other months being generally healthy. Excepting Masulipatam and Ellore, the other stations in this district are in the neighbourhood of mountains, thick jungle, and sometimes marshes, where fever of a formidable nature occasionally prevails to a great extent.

Fever. The type is bilious remittent—sometimes taking the quotidian and double tertian forms, with certain symptoms of typhus, as stupor, black, dry tongue, and great debility—but without any contagious property. It is commonly called the

* • Infus. Gentian. ℥xij.
 Infus. Sennæ, ℥vj.
 Tinct. Cardam. ℥ij."

hill or jungle fever. When not completely eradicated, it always terminates in intermittents that come on at particular periods of the moon, often continuing for years to harrass its unhappy victims, both in India and Europe.

At Masulipatam and Ellore, situated in an open country and sandy soil, the fever is by no means so formidable, though of a similar kind. It is readily removed by purgatives. The treatment is the same as has been before recommended—being active depletion early in the disease.

We must pass rapidly over the minor divisions, only noticing the prominent features of prevailing disease.

Travancore Division. Liver and dysentery affect the Europeans—ulcers and fevers the natives. The dysentery is generally dependent on the hepatic affection.

“The symptoms of liver disease are very insidious, and not easily detected, particularly when the parenchymatous texture of the viscus is the part affected. The strictest attention, therefore, as well as professional tact, is, perhaps, more required in the management of this, than in any other disease in India; and although it is a difficult task to point out clearly what close observation and pathological research can best disclose, yet there are some symptoms that may be depended upon, and those I shall endeavour to state briefly.

“Acute pain is present only when the coats of the liver are the seat of disease. This symptom is generally attended with febrile heat, full, quick pulse, and white, excited tongue; which are often the only signs that indicate inflammation of the internal structure of the organ. To remove these derangements, general and local bleeding, with smart purgatives, should be resorted to without loss of time, and repeated until they are completely subdued; after which an alterative course of mercury, for a fortnight or three weeks, will effect a cure. This acute form of hepatitis usually affects healthy, robust men, on their first arrival in India, and frequently terminates rapidly in abscess, if not checked at its commencement; the practice, therefore, should be energetic, in order to subdue inflammatory action at the onset of the disease.

“The chronic stage of diseased liver generally occurs amongst old, debilitated Europeans, and amongst those who have suffered from the first or inflammatory stage, and who, having been discharged from medical treatment, had returned to their duty before this organ had recovered a healthy action. This practice of premature dismissal from treatment is, I am sorry to say, too common throughout India. It is in the highest degree injurious to the constitution, and it cannot fail to load the pension and invalid establishments. This is the stage of liver disease in which mercurial action is required; and this action is always most beneficially produced when mercurial remedies are exhibited as alteratives and laxatives.

“To affect the mouth has frequently been considered the great

desideratum ; but as there are many subjects in which ptyalism cannot be produced, to follow up a course of medicine for months, in order to attain an object that may be quite impossible, cannot fail of proving highly injurious to the constitution. Hence the danger and mischief of an indiscriminate use of mercury in the diseases of India." 291.

We do not agree with our author that mercury is more beneficial in chronic, than in acute dysentery. On the contrary, we are well convinced that this medicine is, upon the whole, more effectual in acute, than in chronic diseases of every kind. *With it*, the most active depletion should be combined, no doubt—but *without it*, the most active depletion will often fail in the acute dysentery and hepatitis of hot countries. This is our conviction. Let a fair and unprejudiced trial be made of the comparative merits of the two methods—and then let the practitioner judge for himself.—

We cannot, indeed, bring ourselves to imagine that, in these days of anti-mercurial outcry and prejudice, there will be many so lost to all common sense as "to follow up a course of medicine for months in order to obtain an object that may be quite impossible;" but Mr. Annesley has fallen into the now prevailing error of taking the exceptions for the general rules. Because there are individuals who are insusceptible of the salutary operation of mercury in hepatic and dysenteric affections, and others who are severely affected from a small quantity of the medicine, are we to proscribe the medicine, *in toto*, or rail against it in "good set terms," so as to chime in with popular prejudice, and catch the gale of popular favour? Be it so. Truth will, we hope, in the end prevail; and this is the object which we have in view.

Mr. Annesley observes, in the first place, that he is "contending against the bulk of opinion in India;" and in the second place, that he "does not intend to say that mercury is not a most valuable medicine, and indeed one from which more is to be expected than any other, perhaps in the materia medica; but it may be, and it certainly is, upon many occasions, carried far beyond the bounds of judicious administration." We grant this—what then? The fault lies with the *men* and not with the *medicine*. Our author remarks (page 292) that, "when the mouth becomes affected, it is very satisfactory, because it shews that the absorbents and the glandular system are not in a state of torpor; but to continue the use of it for months, or even till ptyalism is produced, I must contend is most injurious to the constitution. I look to its effects on the alvine secretions, and when I see them changed, and find healthy discharges produced, I consider that the use of mercury is beneficial."

Let it be remembered that we are speaking of the acute and chronic hepatitis and dysentery of India—and, bearing this in mind, we appeal to clinical observation whether the alvine secretions are often brought to a healthy condition *before* the gums and breath are affected by mercury. In our own observations, and we are not disposed to give up our opinions when grounded on ocular demonstration, we have generally found the improvement in the secretions and the mercurial odour on the breath either consentaneous, or the latter taking *precedence*. We are perfectly ready then to take Mr. Annesley's criterion for our guide—but let the practitioner take particular notice of the above remark, and if we are wrong let him condemn us.

There is another state of diseased liver, observes Mr. Annesley, which is more common and more obscure than either of those above-mentioned, “and this is a congestive state, in which the *portal* system partakes very largely of the derangement, and which is accompanied by a loaded state of the gall-bladder, and by obstruction in its ducts.” The symptoms are, oppression and weight at the præcordia and pit of the stomach, without pain, but with a sense of fulness and distention about the chest, as if there was a heavy weight in the neighbourhood of the stomach. Alterative mercurials, with aloetic purgatives, were the remedies most successful in our author's hands, aided by leeches and warm poulticing to the epigastric region, with frequent frictions of stimulating liniments. “As dysentery may probably depend upon disease of the liver, and as we find in India, that it actually does so depend in many cases, the removal of the *latter* disorder will frequently prevent the *former*.”

We do not deem it necessary to accompany our author through his topographical details of some other stations, though they will be found worthy of attention by those whose destinies may lead them into those distant regions. To them we can safely recommend Mr. Annesley's volume as a very valuable addition to their necessarily limited library.

Mr. Annesley promises a work on the Diseases of India generally; and most happy shall we be to give every possible extension of publicity to the labours of so experienced and talented an observer.

IV.

An Account of the Morbid Appearances exhibited on Dissection in various Disorders of the Brain; with Pathological Observations, to which a Comparison of the Symptoms with the Morbid Changes has given rise. By THOMAS MILLS, M.D. Licentiate of the King and Queen's College of Physicians. One vol. 8vo. pp. 239. London and Dublin, 1826.

WE have often remarked in this Journal, and indeed the truth of the remark is obvious, that there is but one way of arriving at correct information in the practice of physic—that of connecting the symptoms of diseases with their antecedent causes and post-mortem consequences—to which must be added a careful notation of the effects of remedies during life. Dr. Mills appears to have pursued this method for sixteen years past, and is now presenting the results to his professional brethren.

“My plan was, to note the symptoms and the effects of the remedies, and after death, the appearances presented on dissection.—At the dissection I was always accompanied by one, two, or three medical gentlemen, and it was my uniform practice to take down in writing, at the time, the account of the morbid changes from the lips of the examining surgeon:—this account, on my return home, I copied into my note-book, and then, the whole case being clearly before me, and my mind full of the subject, I wrote down the sentiments to which it gave birth.—My object was to correct any error into which I might have fallen with regard to the nature of the complaint and the mode of treatment, or, to satisfy myself of the propriety of the opinions I had previously entertained;—in short, my object was the discovery of truth.—The case, dissection and comment when finished, I laid by, without any view, at the time, to future publication.” x.

Nothing can be more judicious than this method—nothing more meritorious than a faithful portraiture of the practice. If this example were generally followed, the science of medicine would ultimately attain all the certainty or perfection of which it is susceptible. No doubt, “the pursuit was laborious, the task irksome and painful,” but Dr. Mills acquired thereby much valuable information—was enabled to detect errors—to correct prejudices. By this plan he flatters himself that he has been enabled to proceed from particulars to generals—and if he has not generalized too fast or too far, he has been fortunate indeed.

In this volume, which is the first of a series intended by Dr. Mills, several cases and dissections are detailed of hydrocephalus, cephalic fever, apoplexy, and epilepsy—in short, the

whole volume consists of cases, with occasional short observations. Dr. M. remarks that the above diseases are considered distinct and independent, requiring a distinct and peculiar mode of treatment.

“ Yet when we attentively examine the phenomena and course of each, when we compare them, one with the other, and witness the morbid appearances exhibited in all, and the effects of the same remedies, we shall be compelled to acknowledge that these diseases are closely allied, and, in the true spirit of philosophical research, be disposed to allow that the morbid actions which produce effects so alike, cannot, in their nature, be dissimilar.”—*Pref. i.*

We admit, and so have some of our best pathologists, that there is a strong affinity between the diseases specified above—that many of the morbid processes, by which they are characterized, are of an analogous nature—and, consequently, that the prevention and treatment must hinge on similar principles in all. But we much doubt whether this consideration or admission will authorise us, in a pathological point of view, to attempt the identification of the tribe of diseases enumerated in this volume. We perceive too much disposition to this extensive generalization in the following passage.

“ The phenomena of these diseases likewise merit the serious attention of the reader, in each he finds the prominent symptoms to be head-ach, delirium, stupor, coma, sense of weight or fulness of the head, vertigo, tinnitus aurium, convulsions, paralysis of the sphincters and other muscles, all of which are indicative of disordered actions of the vascular system of the brain, and of a disturbance of the sensorial functions.—To these symptoms we may add a pulse varying in strength, frequency, and regularity, a varying temperature of the skin and an irregular state of the secretions.” xv.

This may be all true; but yet when we examine these diseases, not in their state of *greatest approximation*, but when they are in their ordinary or mean relation to each other, we shall find ample grounds, we imagine, for keeping them distinct on our nosological chart. Thus, let us look at two of them, which are considered by Dr. Mills as most nearly allied—apoplexy and epilepsy, and we shall be constrained to confess that, though they are sometimes combined, or run into each other, they are, in general, very different affections. Look at two men who fall down on the same floor, one in apoplexy, the other in epilepsy. In one, the muscular power is annihilated, in the other, it is so *supernatural*, we might almost say, that three or four strong men are required to control it. Surely these two most opposite conditions of the external phenomena would indicate something very

different in the pathological state of the sensorium, on which the muscular power depends. In the one case, the paroxysm is over in a few minutes, or in half an hour, the patient falling into a sleep, and awaking unconscious of the accident. In the other, the patient dies in a day or two—or slowly recovers, with paralysis of some member—or perhaps comes out of the fit in a short time without any paralysis at all. In one case, the epileptic paroxysms will return, at various intervals, for years, without ultimately destroying life:—in apoplexy, it is very different:—one, two, or three attacks generally terminate the career of life, or deprive the patient of the use of one side of the body, and perhaps of intellect. In both cases do we employ the same remedial agents? What effect would the *argentum nitratum*, or the mistletoe of the oak, have on apoplexy? Is the pathological condition of the brain the same in apoplexy and epilepsy? We much doubt it. The immediate cause of epilepsy is supposed, we know, by some to be a determination of blood to the brain, but this is not proved. It is more likely to be some peculiar *irritation* of the sensorium than a flow of blood. But in apoplexy we are certain that it is a flow of blood to the brain—and too often the extravasation of that fluid beyond the parietes of its vessels. These and many other reasons which we could easily urge, seem to suggest caution in amalgamating diseases which only occasionally assimilate in their pathological characters. It is now many years, indeed, since the elder Parry endeavoured to shew, in his *Elements of Pathology*, the *relationship* of the abovementioned and of several other diseases, but beyond this we think it is not safe nor correct to go, in the present state of our knowledge.

Of the immense collection of cases in this volume we can only select a comparatively small number for admission into our analysis, and these abbreviated according to our usual custom.

Case 1. A child, 2 years of age, had been ill about three weeks with bowel-complaint and fever, loss of appetite and spirits, heaviness of the head, and some intolerance of light—pulse 130 and tense—*feces* greenish—moaning and sighing—rests its head on a chair or pillow. *Leeches to the temples—blister—purgatives—warm bath.* The child was relieved by these remedies; but the *feces* were still green, and the pulse 120. On the second day the pulse had fallen to 90—the stools were still green—and there was stupor. On the 3d day, strabismus, convulsions, death.

Dissection. Vessels of the brain turgid—serous effusion between the membranes—three ounces of water in the lateral ventricles—six drachms of fluid in the pericardium—tubercles in the lungs and spleen—men-

teric glands enlarged—contents of the small intestines of a yellowish and greenish hue.

Remarks. This child had been supposed to labour under a bowel and bilious complaint, on account of the morbid condition of the fæces.

“ During the illness the fæces were greenish ; an appearance commonly imputed to the use of calomel, but which is more properly referrible to the condition of the bile ; green bile was found in the gall-bladder and ducts, whence it was traced to the small and large intestines, every where tinging their contents with a green of a deeper or lighter shade, according to the quantity of bile present, and the quantity and nature of the matter with which it was mixed.” 4.

We are glad to find, from this extract, that we are borne out by Dr. Mills, in the remark which we have repeatedly made respecting this green colour of the stools in children. A general opinion prevails that it is produced by calomel—whereas we have, times out of number, seen it occur and continue where no calomel had been used—nor are we convinced that when this appearance does occur, after calomel, it is the consequence of that remedy. Calomel will often dislodge morbid secretions from the bowels when other purgatives fail—and it has the peculiar effect of stimulating the liver and gall-bladder to discharge their accumulated secretions, and thus produce the phenomenon in a way very different from what is generally supposed. In the case above-detailed, there is unequivocal anatomical evidence of the existence of the green matter in various parts of the intestinal canal, and even in the gall-bladder and ducts. No calomel was given during Dr. Mills’ attendance on the patient.

Case 2. This was a boy, seven years of age, who had been ailing for three months, with pains in his head and bowels, low fever, heaviness in the head, constipated bowels, and dark green motions. The mother of the boy laboured under scirrhus liver. When Dr. M. was consulted, the pulse was 126, skin cool, tongue white, complexion sallow—low delirium—sighing and moaning—cries out “ Oh my head.” Leeches—mercurial purgatives—blisters, and various means were used ; but the boy ultimately sunk, with convulsions, occasional loss of sight and hearing, contracted pupils, paralysis, involuntary stools, and the usual phenomena of hydrocephalic effusion.

On dissection, water was found between the membranes, and no less than six ounces of this fluid in the ventricles. The liver was inflamed, and studded with tubercles, some of which were almost cartilaginous. The gall-bladder was full of green bile. The spleen was tuberculated, as was also the pancreas.

Remarks. We can hardly agree with Dr. Mills that, in this

case, we have no clue as to which of the three organs (brain, spleen, or liver) was first affected. We think there can be very little doubt that the tuberculated condition of the abdominal viscera preceded, for a long time, the inflammation and effusion in the head. It is, therefore, probable, though against our author's opinion, that the morbid actions in these latter organs *did* stand in the relation of cause (whether predisponent or exciting) to the cerebral affection. There is a curious, though by no means uncommon circumstance related in the foregoing case, namely, the *occasional* recovery of sight and hearing, after these senses had been completely lost. This is one of the mysteries of the nervous system which we are not yet able to unravel.

We must pass over several cases of hydrocephalus, with only a slight allusion to a *lusus naturæ*, found in an infant seven days old. The child was fully formed and healthy at birth, but considerable emaciation took place on the fifth and sixth days, with jaundice, feeble pulse, coma, and vomiting. There was serous effusion in the brain, and the hepatic artery was entirely wanting. The liver was small and of a dark colour—the gall-bladder was also very small, and filled with a kind of substance resembling meconium. The *fæces* in the bowels were tinged with yellow bile.

Our author next presents us with a series of cases of hydrocephalus, consequent on other diseases, of which we shall be able to notice only one instance.

Case 3. Mr. K——, aged 42, of melancholic temperament, and subject to indigestion, laboured under inflammation of the liver, especially of the left lobe, with cough and præcordial oppression, which was cured by bleeding, blistering, and mercurial purging. During the preceding winter he had had cough, dyspnoea, pains in the chest, mucous expectoration, hectic fever, and uneasy feelings in the region of the liver. On the 23d January, 1822, he complained of pain and fulness in the head, confusion of ideas, want of rest, inappetency, irritability of mind, attended by frequent epistaxis, and obtuse pain in the liver: venesection and leeches relieved these symptoms, together with blisters to the head and mercurial aperients. 31st. The patient is cheerful, and talks of going down stairs. Feb. 1st. Sudden loss of speech, the sight and hearing remaining perfect, together with the power of deglutition. *Leeches to the temples—blisters to the legs.* He lingered till the 8th, when he expired.

Dissection. Surface of the brain highly vascular—serous effusion under the membranes—substance of the brain very firm—four ounces of water in the ventricles, and much serous effusion in the cellular structure about the optic nerves. In the thorax, there were adhesions, false membranes, and a pint of serous fluid in the right side. The right lung was

completely hepatized, and contained several tubercles. The left was partially hepatized and tuberculated. The cavity of the pericardium contained some fluid, and this membrane was studded with minute tubercles, to an extent of three inches, with a corresponding state of the heart in apposition. The liver was tuberculated in a high degree.

Remarks. Hydrocephalus was doubtless the immediate cause of death in this case, and it is highly probable that this last disease was determined by the other visceral derangements.

Dr. Mills' next cases are those of recovery from supposed hydrocephalus. We quote the following passage, because it contains much truth, and explains what is meant by *recovery* from hydrocephalus.

“Hydrocephalus is, in every instance, a dangerous disease; insidious in its approach, and often rapid in its progress, effusion not unfrequently supervenes before the alarm is given; whenever, therefore, there is ground to suspect the existence of this disorder, when the head is engaged, though some of the symptoms be equivocal, a decided line of treatment should be pursued: now, as this complaint is inflammatory, or congestive in the *first* stage, and dropsical in the *second*, it is clear that general and local evacuants are indicated, and are the only remedies to be relied on; if these fail, effusion follows, when all our efforts too often prove abortive: in cases of recovery, therefore, hydrocephalus, correctly so called, can scarcely, in any instance, be said to exist; but there is inflammation or congestion of the vessels, threatening to terminate in that aqueous effusion from which it derives its name.” 65.

We do not, indeed, suppose that recovery takes place after actual effusion—but we have every reason to believe that all, or almost all, the symptoms produced by effusion, will be produced by that turgescient state of the vessels which precedes effusion—and this state being removed, the apparent hydrocephalus is cured.

We shall here introduce the particulars of a case which is of frequent occurrence in practice, and leads to important considerations.

Case 4. June 2d. Master P——, ætat. 10, had been exposed to wet and cold, and then complained of fugitive pains in the forehead and occiput, languor, throbbing of the temples, alternations of colour in the face, bad appetite, and imperfect digestion. Pulse 110, skin hot. *Venesect. ad ʒviij.* Five grains of calomel. *3d.* Temporary ease from the bleeding—blood sizy—three motions, yellow and greenish, with slime—urine high-coloured—head-ache and fever abated—moans and sighs occasionally. *Leeches to the temples—four grains of calomel—an aperient draught.* *4th.* Much relieved by the leeches—the calomel has brought away *scæces* like tar—urine turbid—skin pale, yet pungent to the touch—pulse 120—uneasiness in the right hypochondrium—tongue

furred. *Twelve leeches to the temples—calomel repeated.* 5th. High fever, and throbbing of the temples—pulse 130—fæces dark and olive-coloured—tongue parched and brownish—uneasiness in the region of the liver abated. *Venesectio ad 3vij.—cathartic—warm bath.* 6th. The blood drawn was dense—temporary relief, but the symptoms became exasperated last evening. *Fifteen leeches to the temples—blister to the nucha—cathartic—warm bath.* 7th. Intolerance of light and noise—stupor—delirium—pulse irregular—skin hot and dry—fæces black. *Venesectio ad 3vj. Balneum tepidum—cathartic—anodyne in the evening.* 8th. Better this morning—exacerbation in the evening. *Cathartic.* 10th. Return of head-ache and fever—restlessness, moaning, and sighing—fæces yellow, urine turbid. *Twelve leeches to the temples—three grains of calomel and half a grain of the watery extract of opium every three hours.* 13th. Head-ache and fever considerably abated; but still there are morning remissions and evening exacerbations—some return of appetite. *The calomel and opium continued.* 16th. Gradual amendment—bowels opened by simple aperients—gums are sore from the mercury. *The calomel and opium continued.* 20th. Some ptyalism—skin moist and warm—free from head-ache and fever—return of appetite. Convalescent.

Remarks. We consider the foregoing case as a very interesting one, where the most active and judicious treatment was put in force, and where the fatal effusion was, in all human probability, warded off by the skill of the physician. We shall give our author's own commentary on the case, as we fully coincide in his sentiments on this occasion.

“ This was a case of threatening hydrocephalus, accompanied by a considerable derangement of the hepatic functions,—the shooting pains in the head, the languor, the intolerance of light and noise, the moaning and sighing, indicated a morbid state of the vessels of the brain, while, from the appearance of the excretions and the uneasiness or pain in the right hypochondre, it was clear that the functions of the liver were much disturbed.

“ It is not unusual to find these two organs simultaneously diseased—in some cases the brain is primarily engaged, in others, the liver; and, how far they stand in the relation of cause and effect, it is not, at all times, easy to determine; one thing, however, is clear, that if either viscus has been long disordered in its actions, or has been altered in its structure, the other, from their mutual relations and sympathies, must suffer from the derangement; this fact is well known to every practitioner: when, therefore, a predisposition to hydrocephalus exists, it is rational to infer that a morbid condition of the liver will induce congestion or excitement of the brain, and finally, effusion into its cavities.

“ The present case affords an example of the advantages to be derived from the prompt employment of active measures; indeed, when danger is present, the loss of a day, or of an hour, may be the loss of

life.—Here we may notice the good effects of calomel and opium after depletion,—these remedies combined are often found to allay irritation and procure rest; moreover, they sometimes succeed in equalizing the circulation, by causing a determination of blood to the surface.” 71.

Before taking leave of the subject of hydrocephalus, we are induced to give the particulars of one more case, the importance of which will be presently seen in the commentary.

Case 5. October 20. Master E——, ætat. 9, was seized a fortnight ago, without obvious cause, with head-ache, nausea, and loss of appetite, followed by pyrexia. Leeches had been applied to the temples, and mercurial and saline aperients exhibited, but without relief. The pain of head is now acute—temples throbbing—face flushed—eyes suffused—pulse 124 and strong—skin hot and dry—tongue foul—bowels open—fæces green and yellow—urine high-coloured. Venes. ad ʒviij. calomel and pulv. Jacobi—enem. purg. 21. Blood buffed and dense—temporary relief from the bleeding—delirium—restlessness—green and yellow fæces—pulse 130—head-affection still violent. 20 leeches to the temples. The other medicines to be continued. 22. Temporary relief as before, but all the symptoms now as violent as ever. Wild expression of the countenance. Venesect. ʒviij.—blister—same medicines. 23. Moaning, screaming, acute head-ache, alternate pallor and flushing. Green fæces passed involuntarily. 15 leeches to the temples—calomel and James’s powder continued—blisters to the head. 24. No alleviation of the symptoms—pupil of one eye contracted, the other dilated—both sensible to light. Blister to the fore-head. Medicines continued. 25. Pulse irregular, tense, and quick—moans, and screams—“Oh my head!”—involuntary dejections. Same medicines. 26. High delirium—jactitation—sight of left eye lost—pupil of right eye dilated—pulse slow and intermitting—moaning and sighing—involuntary dejections—convulsions of the extremities. Sixteen leeches to the temples—blister to the nucha—calomel and pulv. Jacobi continued. 27. Great tossing of the head—sight of right eye almost lost—vacant expression of countenance—body convulsed. Blister to the vertex. Medicines continued. 28. Deglutition difficult—involuntary dejections—tossing and rolling of the head—moaning—pulse frequent—loss of speech. 29th and 30th. Same state.

November 3. Considerable flow of urine—more equable temperature of skin—expression of countenance wild and sometimes idiotic—speech indistinct. November 6. Some alleviation of symptoms—fæces yellow and green—urine copious—pulse more regular and soft—pupils more sensible. From this time there was a gradual improvement, although a gangrenous spot occurred on one hip, which retarded recovery. On the 12th January, he was still confined on account of the sores, but the cerebral affection was entirely gone.

Remarks. This case exemplifies the observation we made respecting the hydrocephalic symptoms depending on pressure

of blood, not effusion of water. Desperate as were the phenomena in this instance, still we do not attribute them to actual effusion—at least of any extent, but to an inflamed and congested state of the cerebral vessels, which was ultimately conquered by bold and persevering measures. Dr. Mills, however, is of opinion that there was actual effusion in this case, and we give his remarks on the occasion.

“ Most, if not all the symptoms which are considered diagnostic of hydrocephalus, in its advanced stage, were here present—every sense was blunted, the power of vision and hearing was suspended for several days,—deglutition was imperfect,—the speech was indistinct, the sphincters were relaxed—there were sighing, moaning and screaming, and, finally, convulsions, yet the patient recovered; indeed, so hopeless did the case appear to me, that for two or three days I gave up my attendance. Cases of this kind are rare, and therefore valuable; they teach us, never while life remains, to desert a patient, and never, to be too decided in our prognosis.—Life may be continued for years with effusion in the brain, as it may with water in the thorax or abdomen, but, there is this difference,—recovery occasionally takes place in the latter disorders, but when the brain is thus affected, very rarely indeed.—To what, in the present and similar instances of recovery, are we to ascribe the favourable result? Is it not to the action of the absorbent vessels of the brain? And, as every other organ of life is furnished with its complete system of vessels—of arteries, veins, absorbents, &c. can we suppose that the brain, an organ of such magnitude, and of such vast importance in the economy of the human frame, forms an exception to this law of nature?

“ About the period of the incipient amendment in this child, the flow of urine was considerable, from which we may infer, that the secretory and absorbent vessels of the system were called into action, and that the absorbents of the brain partaking of this activity, the fluid effused was gradually absorbed.” 95.

We must pass over a vast collection of cases and dissections of cephalic fever and of apoplexy, which fill a large portion of the volume under review, and which are valuable records for reference, in order to dwell a little on the subject of epilepsy, the pathology of which is not so well understood as that of apoplexy.

EPILEPSY.

Case 6. February 11, 1822. At three months old, Miss B. was attacked with epileptic convulsions, accompanied by pyrexia, and throbbing of the temples. Such attacks recurred at irregular intervals, for eight or nine months, when she was weaned, and sent into the country, where she resided five years. During this period the fits seldom recurred, but the little patient became rickety, and, at times, idiotic.

The head was enlarged and the belly tumid—the limbs were feeble and emaciated. In the course of the next five years, great attention was paid to her health, and some amendment took place, both in body and mind; but epileptic seizures still occasionally recurred. During the last six years of her life, she was afflicted with head-aches, and was subject to stupor, coma, vertigo, and tinnitus aurium, together with despondency and irritability of mind. The epileptic fits continued. At the age of 15 she menstruated, and died in a fit of apoplexy in her 16th year. The day before her death she dined with a good appetite—was able to walk about, and converse with her family.

“*Dissection.* On removing the cranium, numerous red points present themselves from torn vessels on the outer surface of the dura mater, the veins on the surface of the brain are turgid.—Between the dura mater and Arachnoid membrane is a watery fluid; in some places the Arachnoid membrane is opaque.—The falx is adherent to the lateral hemispheres, and these to the anterior lobes of the brain. The septum lucidum is destroyed, with the exception of a few shreds, which had been vessels.—The anterior part of the fornix is nearly removed by absorption.—The foramen monroianum is so enlarged as to allow the thumb to pass from one lateral ventricle into the other.—The lateral ventricles contain one pint by measure of a watery fluid; the appearance of this cavity in the substance is truly frightful.—The third ventricle is so much enlarged as to admit the fore-finger.—The iter à tertio ad quartum ventriculum will admit a goose quill.—The substance of the brain is considerably reduced, within the ventricles, it is of the consistence and feel of leather.—The optic nerves are smaller than usual.—The cranium is enlarged, and its bones, in some parts, are thinner than natural.” 213.

The foregoing case is worthy of record, on account of the vast collection of water—the absorption or expansion of the brain—and the preservation of a considerable degree of intellect, under such terrible circumstances. There can be little doubt, however, that the hydrocephalus had been going on almost from birth. We knew of an instance where a large quantity formed in four years in the head of an adult, after an attack of apoplexy, and where the patient could walk about, eat, sleep, and converse till the moment in which he fell down in a fit and expired.

Case 7. This was a gentleman of temperate and sedentary habits, melancholic temperament, delicate frame, and subject to indigestion. He laboured under epilepsy eight years, the attacks varying in frequency and violence. They were preceded by pain and heaviness of the head, stupor, confusion of ideas, imperfect vision and tinnitus aurium. They were followed by stupor, melancholy, and loss of memory. On the

three days preceding his death, he had three successive fits, after the first of which there was paralysis of the right side—after the second, dilatation of the pupils with loss of vision—and the third was succeeded by violent convulsions and death.

“*Dissection.* The dura mater is thickened in several places.—A gelatinous fluid of a pale white is generally diffused between the Arachnoid membrane and pia mater.—The vessels on the surface of the cerebrum are turgid with blood of a dark colour.—On cutting through its substance it is found preternaturally hard and dotted with numberless dark-coloured specks.—The septum lucidum is strong and thickened.—The cerebellum presents the same diseased appearance as the cerebrum.

“The colon is distended with flatus.—The mucous coat of the small intestines is dotted with numerous dark spots apparently arising from venous congestion.—The bladder is unusually large and distended with urine.—The liver is considerably enlarged and hardened, and firmly adherent to the diaphragm;—on cutting into its substance it appears much paler than natural.” 216.

Our author has observed this state of the brain in other epileptics, and has thence been led, in every case of this complaint, accompanied by diseased cerebral action, to establish a drain from the vertex, and sometimes from the nucha. In the majority of cases, the remedy was not successful, but it “generally mitigated the violence of the paroxysms, and, in a few instances, has apparently cured the disease.”—Such was the following instance.

Case 8. Mrs. C——, ætat. 46, had been subject to epileptic fits for four years, which returned at irregular intervals, but most frequently in summer. They were often violent, and continued with some intermissions for one or more days. These fits are brought on by troubles of mind, constipation of bowels, or bodily fatigue—and sometimes occur without any apparent cause. The attack is always preceded by vertigo, pain or sense of fulness in the head, confusion of ideas, or tinnitus aurium. Very often the digestive organs are deranged for some days preceding the attack, as evinced by a painful distention of the stomach and bowels, loss of appetite, offensive eructations, and furred tongue. The lady has been subject to hepatic derangement and despondency of mind for some time.

Blood-letting had been generally employed in the paroxysms, followed by mercurial purgatives, &c. Dr. Mills directed a drain to be established on the vertex by antimonial ointment—and four grains of James’s powder with two of calomel to be taken every night, followed by a moderate dose of Epsom salts the next morning. *This was on the 6th July.* By the 30th

of the same month, the gums were sore, a copious discharge was established from the vertex, and there had been no return of the fits. This immunity lasted till the 12th October, when she was threatened with a paroxysm, but the attack was warded off by venesection and a brisk purgative. The drain was continued, and she went on till the 18th July of the succeeding year, without any paroxysm. She then discontinued medicines, but kept the drain open. She was taken leave of as cured.

Remarks. "The case is instructive; it shews that much benefit may occasionally be derived from relieving the brain when this organ is the seat of the disease.—It likewise shows that the antimonial ointment properly employed, may produce, for months, a copious purulent discharge from the vertex, and thus may prevent a recurrence of an epileptic paroxysm.—This patient thought she experienced considerable relief from the use of James's Powder; and from its action on the cutaneous vessels, no doubt it contributed to equalize the circulation, and thus to diminish or prevent congestion of the brain.—It may be proper to mention, that on one occasion, an approaching fit was prevented by a removal from the town into the country, and by the operation of a brisk cathartic." 223.

By a note appended to this case, it appears that this lady is still subject to attacks, at intervals of four or six months, but the fits are slighter than formerly. She has again established the discharge from the vertex.

We can only advert to one more case before we close our notice of this volume.

Case 9. Mr. B——, aged 36, addicted to intemperance, was attacked, after a fit of intoxication, with violent convulsions of the head, face, tongue, body, and extremities. These were followed by stupor and insensibility—pulse 116, strong and intermitting—skin hot and moist—tongue foul and yellowish—face flushed—bowels constipated. *Bled and purged.* Next day, there was delirium, and a return of the convulsions. Bled from the temporal artery, and again purged. He gradually got better, and in ten days was pronounced convalescent. About six weeks after this, on drinking half a pint of spirituous liquor, he lost, for several minutes, all sense and power of motion, followed by convulsions of body and extremities, foaming at the mouth, distortion of the face, &c. He was *bled and purged*—and the next day *leeches*, the same paroxysm having returned. Delirium and other bad symptoms now came on, and he died on the third day. We shall give

the dissection in the words of our author, premising that this patient, during the preceding year had laboured under repeated attacks of maniacal delirium, the consequence of intoxication.

“ The os frontis is of unusual thickness, the arachnoid membrane is raised from a quarter to half an inch from the pia mater by a serous effusion, which extends over the entire surface of the cerebrum.—A considerable quantity of serous fluid escaped on cutting into the right ventricle; the left and third ventricles are distended with the same fluid.—The walls of the lateral ventricles are considerably firmer than natural.—Plexus Choroides very pale.—The quantity of serous fluid found upon the surface of the brain, in the ventricles and the base of the cranium, may be estimated at about six ounces.—The liver is larger and harder than usual; externally it is of a brick-colour, and when cut into tubercles or marks of inflammation are discoverable.—The gall-bladder is distended with bile of a greenish-yellow.—The spleen is paler, smaller, and softer than natural; it yields to the pressure of the hand, and when thus broken resembles coagulated blood.—The omentum is loaded with fat.—The coats of the stomach are thickened, on the mucous surface are observed red and purple-coloured patches differing in their size and figure.—The mesenteric glands are loaded with fat.—The mucous coat of the ilium in some places is highly vascular.—The lungs contain more air than usual; in the superior part of the left lung are three portions of calculous matter, each about the size of a small pea.—The heart is fatty but natural.—The pericardium contains about a dram and a half of serous fluid.” 229.

The foregoing case is interesting, as shewing the melancholy effects of intemperance, especially in spirituous liquors, on the great organs of the body, including the organ of mind!

We must now take our leave of Dr. Mills' work, hoping that we have presented fair specimens of the matter and manner of the publication, while, at the same time, we have enriched our pages with some valuable and authentic facts that are calculated to guide the judgment and excite the attention of the practitioner. We shall be happy to pay our respects to the forthcoming volume from the same pen, on diseases of the chest. We think the zeal and candour of our author are highly praise-worthy, and entitle his work to a favourable reception from his brethren on both sides of the channel.

V.

An Inquiry concerning that Disturbed State of the Vital Functions, usually denominated Constitutional Irritation.
By BENJAMIN TRAVERS, Esq. &c. &c.

ON POISONED WOUNDS.

[Second Article.]

BESIDES the personal dangers to which the daily avocations of the medical man exposes him, from coming in contact with diseases of a contagious nature, there are some others to which he is subjected while cultivating his professional knowledge, purely for the sake of science. None of these are more terrible and sudden in their direful effects than wounds received while prosecuting the study of anatomy—or investigating the seats and nature of disease. By these, the student is sometimes rapidly hurried to the grave, in the hey-day of youth, and the hopes of fond parents thus closed for ever:—by these, the experienced practitioner is torn from his family, in the midst of health and rising reputation, while his widow and orphans are all at once precipitated from affluence to indigence! No event is more calculated to awaken the best sympathies of our nature, or call forth unavailing regret, than one of this description. The melancholy accident too often happens to the zealous and indefatigable student, while his idle, dissipated, and careless companion escapes. The conscientious and the anxious medical practitioner, who steals an hour from necessary repose, for the sake of ascertaining the nature of his patient's complaint, when art had failed, is thus suddenly caught in the fangs of death; while the inquisious and routine practitioner, who seeks and thinks he needs no lights from morbid anatomy, safely plods on in his dull and darksome path.—Such are the events of life as daily displayed before us. They are calculated to call forth the sigh of sorrow—but we dare not repine at the ways of Providence, dark and mysterious as they sometimes seem!

The class of diseases, on which we are about to enter, embraces a wide range, and is not confined to the anatomist and pathologist. Veterinary students, farriers, butchers, cooks and others, in common with ourselves, are especially exposed to what are termed “poisoned wounds” and their fatal consequences. Our readers are aware that some writers and teachers have denied the absorption of putrid matter or morbid poison in these cases, attributing the whole of the phenomena

to a certain predisposed irritable state of constitution, induced by impure air, sedentary habits, deficient rest, anxiety of mind, depressing passions, &c. &c. We have never denied that this predisposition in the constitution would often render the slightest puncture dangerous in its consequent inflammation; but we have, at the same time, maintained that this explanation frequently fails, and that we are forced to admit the introduction of a virus, on many occasions, to account for the train of dangerous symptoms succeeding slight dissection wounds in people of excellent constitutions, and in the prime of life and health. We are happy to find that Mr. Travers has not been led away from the sober path of observation by this fashionable doctrine; and that he recognizes two distinct classes of these diseases—one arising from simple injuries in irritable constitutions, of which numerous examples have been given in our first article—the other, from the operation of an inoculated poison.

“ The following case demonstrates that inflammation is not necessary to the most virulent and fatal action of the poison, and in general, I should be disposed to say of these cases, that the symptoms of local inflammation and constitutional irritation exist in an inverse ratio of severity. The following case rests upon the authority of Sir Astley Cooper.

“ Mr. Elcock, student of anatomy, slightly punctured his finger in opening the body of a hospital patient, recently dead, about twelve o'clock at noon, and in the evening of the same day (Monday) finding the wound painful, showed it to Mr. Cooper, after his surgical lecture, by whom he was referred to Dr. Haighton, in whose house Mr. E. at that time resided. He applied a poultice to the finger, and took some active aperient medicine. During the night the pain increased to extremity, and symptoms of high constitutional irritation presented themselves on the ensuing morning. No trace of inflammation, however, was apparent, beyond a slight redness of the spot at which the wound had been inflicted, which was a mere puncture. In the evening he was visited by Dr. Babington, in conjunction with Dr. Haighton and Mr. Cooper. Still no local change was to be discovered, but the nervous system was agitated in a most violent and alarming degree, the symptoms nearly resembling the universal excitation of hydrophobia; and in this state he expired at three o'clock on Wednesday morning, within the short period of forty hours from the injury.” 204.

If the above case do not indicate the introduction of a morbid virus, on as good evidence as medicine can generally afford, then we are very blunt in our perceptions.

Mr. Travers classes inflammations of the limbs from injury, according to the four several textures which are subject to these phlogoses: viz.—inflammation of the absorbents and their

glands, superficial or deep-seated—of the veins—of the cellular membrane—of the thecæ of tendons and fasciæ of muscles. But although these forms of inflammation are sufficiently distinct in their origin, they are liable to become complicated in their progress.

The inflammation of the absorbent vessels has long been known and understood. It is characterised at first by inconsiderable swelling, while the blush is confined to the raised and cord-like absorbent lines, as is the chief pain. Above the elbow and in the axilla, the glands become swollen and tender, while a heavy pulsatile pain shoots from the wounded finger or hand upwards along the arm. In a short time, the inflammation, if acute, extends to the fasciæ, and the whole limb becomes swelled, heavy, tense, and morbidly sensible to the least impression. The constitutional symptoms are agonizing pain—sympathetic fever of suppuration—and afterwards irritation from the confinement of matter. The pain, in the first stage, has often caused delirium, and has sometimes been followed by fatal collapse, when active measures were neglected.

Inflammation of the deep-seated absorbents is thus characterized.

“ A very slight and transitory visible inflammation of the superficial absorbents following an injury to the finger, is sometimes accompanied by acute pain and tenderness to the lightest touch, of the inner side of the upper arm and axilla; shortly, a deep-seated and firm swelling, marked by a vivid blush, occupies the channel of the large vessels from a little above the elbow to the hollow of the axilla. The depending position of the limb, which is more tense than swollen, cannot be borne for an instant. The pain is attended by inflammatory fever, and only relieved by free blood-letting. The blood bears the stamp of acute inflammation. The disease terminates in humeral, or axillary, or pectoral abscess, properly so called. This is inflammation of the deep-seated absorbents, and the slight and transient blush in the course of the superficial vessels, if present, is sympathetic.” 207.

Phlebitis. This inflammation Mr. Travers considers as rare, and generally arising from the employment of a foul lancet in venesection, or something unfavourable in the constitution. It is recognized by moderate swelling but great tension of the limb—cordy hardness of the vein, traceable towards the axilla—excruciating pain—sense of weight and immobility—festerling or oozing of the orifice. Such are the local or external phenomena; while the extreme constitutional excitement, morbid vigilance, mental irritability and despondency, running rapidly from delirium to exhaustion, mark the internal workings of this dangerous disease. The blood drawn is strongly

cupped and buffed—the pulse rapid and stringy, becoming fuller and softer after venesection, the pain being only partially relieved. This inflammation is slow in affecting the contiguous textures, and terminates in a free purulent discharge from the ulcerated orifice, with one or more abscesses in the course or vicinity of the vessels. If overcome, the disease leaves a state of extreme debility, with hardness and stiffness of the limb.

Inflammation of Cellular Membrane. This is divided by Mr. Travers into simple or phlegmonous—serous or erythematic—erysipelatous—and gangrenous. On each of these our talented author makes many judicious observations; but we can only dwell for a few minutes on the serous or erythematic phlogosis, which Mr. Travers considers as “a specific inflammation peculiar to poison.” This species passes over or slightly affects the absorbents and the entire extremity—and shews itself in a slight fulness and tenderness of the neck, subclavian, humeral, and pectoral regions. The inflammation spreads backwards over the scapular region, and downwards by the serratus and latissimus dorsi. An erythematous blush, of a pink hue, irregular in its outline, but abruptly defined, next appears.

“If the finger is placed within the disc of color, it gives acute pain, so that the patient convulsively shrinks, while beyond this, pressure gives no pain. After a day or two, the part loses its vivid efflorescence, and becomes less exquisitely sensible; but the appearance of fulness rather increases, and the sensation to the touch is that of a very obscure or diffused fluctuation, as if the cellular membrane was broken up, a doughy or quaggy feel. If punctured, a serous fluid only escapes. If the patient survives a fortnight, this becomes purulent, in short it is a diffused cellular suppuration.” 211.

In most instances the superficial absorbents are slightly inflamed for a day or two before the blush appears; but this is trifling and evanescent. Mr. T. considers this inflammation as produced by the specific irritation of a poison conveyed by the wound into the current of the circulation. It terminates in either a serous or lymphatic effusion into the cells, with an early disorganization of their texture—or, in its milder form, in a weakly and diffused suppuration throughout the cellular texture, unpreceded by any adhesive action. This disposition bounded for the most part to one side, appears afterwards in large undefined collections in different and distant regions of the body—and, if the patient live long enough, in very slow succession.

Mr. Travers touches on inflammation of the aponeuroses, thecæ, fasciæ, and periosteum, but his observations require no notice here. In recapitulation, he states it as his experience and belief, that the erythematous inflammation belongs to a specific irritation—the erysipelatous, to a specific state of constitution—the gangrenous, to age or constitution, if not plainly occasioned by the extent of mechanical disorganization.

All inflammations, he properly observes, are indications of natural resources. The erysipelatous and erythematous seem to be modes of inflammation, with inadequate power to carry them on to a termination. The adhesive stage is defective—they are incapable of healthy suppuration, and their imperfect effusion or suppuration is at the expense of life.

“Now this is either due to the nature of the injury, or to the state of the system. A poison taken into the system will set up this inflammation in a healthy subject; in an unhealthy subject such an inflammation will be produced by a simple injury; or a poison may be generated in the constitution, independent of local irritation. In scrofula the inflammation is always weak, and the secretion imperfect; in cancer this is yet more defective and vitiated, as is evinced by the deviations from a healthy character in the purity, consistence, color, and odor of the matter. Some poisons deprive the blood of the coagulating principle when drawn from the body. In such a condition of the system and the material as this change implies, is it possible that healthy secretions should be formed? Is it extraordinary that, in particular circumstances, the vascular action should be so modified or altered by an enervation of vital power as to be incapable of forming the first products of sanatory inflammation—incapable of circumscribing and determining secretions to the surface, and thus operating its own relief? Either these inflammations are constitutional, i. e. the result of certain unhealthy conditions of the system, whether arising spontaneously or from injury; or they are the result of specific irritations, the nature of which is to destroy the principles by which the constitution is preserved from destruction. Such in my belief is the explanation of the erythema and erysipelas set up by poison, whether extraneous or morbid.” 222.

A bold inflammation of absorbents, cellular membrane, fascia, or even of a vein, is a much less dangerous action than that which manifests its character in the first instance by its effects on the constitution. When called to students or others labouring under such inflammations, he has regarded them in a favourable light, “for if they are to be referred to the inoculation of the wound with a poison, it is a local poison, its virulence appears and is exhausted upon the part—the constitutional disorder, however severe, being such as belongs to ordinary irritation.” When, on the other hand, the degree of

inflammation is disproportionate to the pain and nervous excitement—when the local affection shews itself, not upon the arm, but on the breast, and assumes the character of erythema or erysipelas, with which the constitution sympathises—then our author entertains a less cheering view of the case.

As an illustrative example of the symptoms marking the highest degree of constitutional irritation resulting from the poison of dead animal matter, our author introduces the case of the late Dr. Pett, of Hackney, as drawn up by Mr. Toulmin, Jun. of the same place. As the particulars of this interesting case are already before the public, we shall only merely glance at it here, to keep up the thread of the subject.

Dr. Pett examined the body of a lady who died of peritoneal inflammation, *post partum*, on a saturday morning. He handled the diseased parts, and assisted in sewing up the body. He was not conscious of having pricked himself. Between eight and nine o'clock in the evening he joined a party at a friend's house—the last he was ever to join!—and there began to feel heat and pain in the middle finger. On examining it by means of a lens and strong light he discovered a minute opening in the cuticle, in the centre of a blush of redness. This was touched with nitrate of silver, and afterwards with nitric acid. At 9 the next morning, Mr. Toulmin found the finger swelled and inflamed; the inflammation extending in red lines up the fore-arm. The countenance was now haggard and depressed—pulse 90—had had a shiver in the night, followed by some reaction, the pain in the finger being agonizing. He had taken ten grains of calomel in the night, and now took senna and salts—leeches—poultice. At 1 o'clock, the alteration in Dr. Pett's countenance was striking—the face was rather suffused—eyes hollow and ferretty—breathing sudden and irregular—his manner torpid, as if he had taken opium. Said he was completely knocked down, and had no strength left. The finger and hand were now more swollen, the skin of the former exhibiting a livid appearance, with subjacent effusion. A lancet was pushed in to the bone—the last and middle phalanges were found to be completely gangrenous. The inflamed absorbents could be traced to the elbow. The remainder of this day was chiefly passed in heavy sleep, with much suffering in the intervals. On Monday all things were making progress towards a fatal termination. Sir Astley Cooper thought he felt obscure fluctuation in the hand, and made an opening, through which issued a minute quantity of matter. Tuesday, all the symptoms aggravated. The powers of life were ebbing fast. On Wednesday morning

there was an appearance of tranquillity and cheerfulness, but with some wandering of the intellect. His general appearance was frightful and haggard. He died at 6 o'clock on this day.

Dissection. The heart was of extraordinary size—the parietes thin, and substance flabby—no disease of valves or great vessels.* “The lungs were choaked with air,” (an expression we cannot well understand) and contained much blood—texture sound. There was nothing else worthy of notice in the viscera. The head was not examined.

Mr. Travers next introduces several cases, among which we find that of Mr. Dease, the full details of which we gave in a former Number, from the third volume of the Dublin Hospital Reports. These cases we perfectly agree with Mr. Travers in considering as well-marked instances of the admission of a poison into the system. It is impossible, we think, for any unprejudiced man to read the cases of Dr. Pett, Mr. Dease, Mr. Delph, and others, without being fully convinced that a morbid virus was introduced into the system, whatever susceptibility there might be in some of the individuals to give that virus an increased facility of developing its fatal ravages throughout the constitution.

“All these cases exhibit strong excitement in the commencement, and early and rapid prostration. In none is any marked or permanent affection of the absorbent vessels apparent during life, yet the cellular substance of the axilla and breast are in all affected with erythematous (serous or suppurative) inflammation. In all the brain and nervous system sympathize quickly and deeply; in some the stomach and diaphragm are affected, and not in others. In one case the local inflammatory disposition is stronger than in another. It is by no means to be supposed that the causes which act in aggravation of common inflammation are suspended in cases of poison, when inflammation is once set up. There may be therefore more or less of acuteness and strength in the local action, according to the habit of the subject and the circumstances of the injury, as the nervous excitement may be more or less rapid and considerable in different individuals, under similar degrees of intensity of the poison. In drawing the line, therefore, between the simple and the specific action, we must bear in mind that to a certain extent they necessarily co-exist, and this adds considerably to the difficulty of the distinction.” 287.

Mr. Travers next introduces a case communicated by Dr. Spurgin, illustrative of the minor degrees of irritation, local and constitutional, to which cooks and others, engaged in handling putrid animal matters are exposed, when they happen

* Dr. Pett considered himself affected with disease of the heart, and the above condition of the organ proves that he was right in his suspicion.

to have chapped or scratched fingers. The inflammation attending these accidents is generally of the erythematous species; appears in patches; is sometimes accompanied by intense throbbing pain; and, though subject to shift its position, does not quit the vicinity of the wound. It seldom advances to supuration; but the health and spirits are materially affected. We shall present our readers with a sketch of Dr. Spurgin's case.

Case. A cook, of unhealthy appearance, was practising the art of boning on a stale hare the 4th December. In this operation she received two slight scratches, to which she paid no attention at the time. A few days afterwards they began to inflame, attended with dull pain and sense of numbness. A poultice was applied, and some aperient medicine taken. These relieved her for a couple of days, when the symptoms returned, and Dr. Spurgin ordered some colocynth and hyosciamus to be taken, and a poultice to be applied. Next day (11 Dec.) bark and soda was ordered, but this combination failed to allay the constitutional irritation—and on the 12th, she was attacked with violent pain in one of the fingers, and strong pulsation. An incision was made at her own request, and a sanious blood was discharged. Instantaneous relief followed. 13th. Free from pain—but no appetite—tongue charged and rather dry—dejection of spirits—weak unsteady pulse. 14th. The pain returned—the inflamed parts were dark-coloured, and the inflammation extending. Five leeches were applied, and produced relief. 15th. Another return of the pain and inflammation, requiring leeches, fomentations, &c. 16th. Nearly the same, and requiring similar treatment—constitutional symptoms increased. She was now sent into the country, and proper injunctions given her, where she soon recovered.

These kinds of cases, Mr. Travers thinks, have the specific character, and “the circumscribed sphere of the morbid action may be due to the very superficial injury inflicted, and, consequently, the imperfect exposure of an absorbing surface—or to the mere application of the matter to such a surface in place of its introduction by inoculation;—from either of which causes it might result, that the quantity of matter absorbed was so minute, or its virulence so modified, as to expend itself upon the parts contiguous to the wound, thus operating as a strictly local poison.” We confess that our ideas do not entirely coincide with those of our talented author on this point. When we consider what dreadful consequences result from the slightest abrasion sustained during the examination of a body dead of peritoneal inflammation, we cannot but suspect that it is to a difference in the quality of the morbid poison, rather than to any difference in the quantity or mode of its application, or the extent of surface to which it is applied.

The next class of cases on which Mr. Travers enters are of

more frequent occurrence and of less severity than the foregoing. "Although presenting very diverse phenomena, they are, I believe, generally, but not universally, considered to owe their origin to a similar cause with the foregoing. It is of importance to examine and decide this question." The following case, communicated by Dr. Gordon, of Finsbury Square, is introduced, among others, as illustrative of this class.

Case. Mr. Clifton, of Islington, aged 37, scratched his thumb with a needle, while sewing up the body of a female who had died of peritoneal inflammation, not puerperal; the scratch being too slight to attract attention. He was awakened at three o'clock the next morning, however, (12th Sept.) by the excruciating pain of his thumb extending along the arm to the axilla. Dr. G. saw him at 1 o'clock, P.M. and found the thumb and fore-arm swollen, with hardness of the absorbents, but no redness. The hand and arm communicated a burning sensation to the touch, the rest of the body being below par in temperature. The constitutional symptoms were very striking—the appearance of the patient brought to Dr. Gordon's recollection the symptoms of hydrophobia. Though naturally of firm nerve, the patient's whole appearance was that of extraordinary anxiety. He was morbidly sensible to the least noise, and was disturbed even by the breathing of surrounding persons. The countenance was shrunk, haggard, and cadaverous—head-ache and sensibility to light—intolerable sense of oppression on the chest—tongue loaded—nausea. He occasionally sprang out of bed, apparently unconscious of what he was doing, but really from pain and a resolution to avoid complaint. The pulse being very hard and full, at 120 in the minute, and his constitution being naturally good, he was bled to 30 ounces, having taken a dose of calomel in the morning, by which his bowels were well cleared. He was relieved by the bleeding, and the pulse fell to 80, though without much diminution of volume or hardness. Blood not buffy, nor firm in crassamentum. 13th. Had passed a bad night, and suffered dreadfully from pain; yet the constitutional symptoms were milder. The arm and hand were much swollen, and red lines were perceptible in the course of the absorbents. "He appeared much sunk in every respect, and complained greatly of his head." Leeches and cold applications to the head. 14th. Appearance improved, but he suffered dreadfully from pain in the night. The local affection was on the increase. Venes. ad 3xij.—leeches in great number to the arm. By these he was relieved for a time, but an exacerbation occurred in the evening, with "the worst constitutional symptoms." Complaining of overwhelming oppression in the head and chest, the patient was again bled to sixteen ounces, leeches and purgatives being reiterated. By these means, especially the bleeding, he was much relieved, both locally and constitutionally. 15th. Still in a very precarious state, all the symptoms being aggravated, except the affection of the head—pulse 120, and wiry—no appearance of matter in the hand—no rigor. An incision was made into the thumb, but only blood issued—it was then

laid open to the bone, along its whole extent, and about a tea-spoonful of matter flowed from the point originally punctured. The matter was healthy—the relief instantaneous—sound sleep followed. In a few hours hæmorrhage, to the amount of 30 ounces, took place from the hand. After the faintness occasioned by this loss, the pulse rose to 120, full and hard—and the deep-seated pain in the arm returned. Leeches to the number of 140 were applied between Sunday and Tuesday. These alone afforded relief.

“On the evening of Tuesday, the 16th, a sudden alteration took place. I was with him at the moment, and nothing could be more striking. The countenance became cold and cadaverous, and he threw himself back on his bed, abandoning the sitting posture, which was the only one he had hitherto been able to bear. He sighed frequently, tossed his arms about the bed, and rolled from side to side. The pulse rose to 140, became soft and compressible, but there was no diminution of pain. The symptoms appearing to me now more those of irritation than inflammation, I gave him twenty-five drops of Battley's solution of opium, and subsequently fifteen more. I may here observe that he had not been able to take opium in any form, and even hyosciamus disagreed violently with him, for on the second day, his pulse having been reduced by the bleeding, and suffering much from pain, I gave him five grains, which instantly affected his head and increased his restlessness. In the present instance, given just at the moment its exhibition was indicated, it was attended with the happiest effect, and he enjoyed some hours of refreshing sleep.” 301.

The application of a few more leeches was the only thing necessary. He gradually improved in health and strength.

Mr. Travers here records some other cases of a similar kind, namely, the cases of Mr. Brayne, now surgeon of Banbury—of Mr. Wansbrough, of Fulham—of Mr. Percival, a medical student, and others. We do not consider it necessary to quote any besides the one detailed. Mr. Travers looks upon these cases—Mr. Clifton's for example—as “cases of simple irritation.” “The disturbance of the nervous system, it is true, was unusually great, but the rapidity and obscurity of the supuration, the unretrievable confinement of the matter, and the aggravation of acute inflammation from this cause, sufficiently explain the overwhelming pain, and thence the whole train of symptoms.” This is a plausible explanation, and probably a just one—but we confess that it is not quite satisfactory to us. We are aware, indeed, that severe constitutional disturbance will often result from matter confined under fasciæ or periosteæ; but a train of phenomena resembling hydrophobia the very day after the infliction of a dissection-wound, appear to us out of all proportion to those which would accrue from the most active inflammation and rapid formation of matter. It is allowed

that a morbid poison was applied to the wound, and occasioned the local phenomena. Now we see no reason why the absorption of a portion of this said poison might not have *contributed* at least to the production of those terrible constitutional symptoms so rapidly developed after the infliction of the wound. This, however, is matter of conjecture. The agonizing pain arising from the inoculation of this destructive virus, whatever it is, may be capable of exciting extraordinary commotion in the nervous system, and, through that, of the whole animal economy.

“ The case of Mr. Hutchinson related, with that of Mr. Dease, by Dr. Colles, in the second volume of the Dublin Hospital Reports, I consider an unequivocal example of absorption. The milky vesicle upon the site of the wound, the intense pain in the shoulder, the extensive erythema on the right side of the trunk, together with the extreme dejection of spirits, and constitutional suffering, are truly diagnostic. Mr. Egan's case, described in the same paper, I reject—not because I doubt that much variety may exist in the seat and character of the local action, but because neither the constitutional nor local symptoms were characteristic; they were in fact such as a simple local irritant was both likely and competent to produce, viz. erysipelatous redness of the wounded thumb, pain passing up the arm, an enlarged gland at the edge of the pectoral muscle, with the deep-seated abscess of the axilla, and symptomatic fever of suppuration.” 326.

Mr. Travers makes some observations on Dr. Duncan's paper in the first volume of the Edinburgh Medico-Chirurgical Transactions, a paper well known to our readers, from the extensive analysis we gave of it. He entirely coincides with Dr. D. in considering “diffuse cellular inflammation” as “the most frequent form of that severe affection which occurs from the application of the fluids of a dead human body to a wounded or abraded surface.” The cases of Messrs. Blyth, Young, and Hersey, appear to Mr. T. to have been well-marked instances of absorption.—Most of the other cases recorded by Dr. D. he classes with that of Mr. Clifton, &c. ranking them as cases of irritation only, and unaccompanied by absorption. As our author attaches great importance, and for good reasons, to this distinction, we shall be pardoned for introducing a pretty long extract in this place, in order that Mr. Travers may explain himself in his own words.

“ But it may be further asked—since we admit that the poison absorbed from dead animal bodies varies in degree—may it not also vary, like the morbid poisons, in kind, and hence the difference in phenomena attending upon wounds in dissection be explained? For example, in some cases only, are pustules, pimples, or vesicles found in one

or more parts. In some the absorbent glandular system is chiefly affected, in others the cellular; in some the wound inflames, and inflammation spreads along the limb from the wound; in others the wound can scarcely be said to inflame, but the inflammation is acute at the opposite extremity of the limb, or courses over the trunk of the body; in some the primary inflammation is altogether insignificant, the pain and general disorder of the system enduring and most severe, and after a continuance of many weeks of extreme debility and emaciation a deep chronic abscess presents, and proves critical of the malady. Lastly, in other cases the inflammation subsiding favorably in the injured extremity, appears within a few hours in that of the opposite side, and terminates in deep and extensive suppuration, or gangrenous erysipelas. It would appear on the above hypothesis, that one form of the poison irritated upon contact and provoked resistance to its admission, that is, inflammation in all the parts through which it passed; and that another, by its silent and uninterrupted entrance, and instant admixture with the mass of blood, exhibited on the contrary its characteristic effects at other and remote parts of the system.

“ The following objection to admitting the cases in question to be instances of absorption appears to me to be decisive; they differ in no important respect from simple injuries with clean instruments; from abrasion and bruise, or inflammation of the cutis even without lésion. From such causes inflamed absorbents and their glands, and continuous cellular inflammation and suppuration are constantly arising, and there is no evidence to prove that continuous inflammation ever arises from the passage of poisons into the mass of blood. On the other hand, distant, diffuse and superficial cellular inflammation is certainly not an effect of simple injury, but this is the prevailing characteristic of the local action in the most urgent and fatal cases. Now although it is in the highest degree probable that the poison varying in intensity should occasion a more or less severe disease, as we see in the cases related, it is as improbable that the character of the specific action, should be subject to variety: in a word, it is improbable that the effects of the poison, quasi poison, should be at one time such as we have described, and at another such as are liable to be produced and frequently are produced by simple causes of irritation.

“ Are the cases then of non-absorption to be regarded simply as results of mechanical injury, and would the subjects of them have been liable to be affected by similar consequences from similar injuries inflicted with clean instruments, in pure air and wholesome occupations?

“ I think I have drawn a line of distinction broad enough to be easily recognised, even by a superficial observer, between the cases of absorption and non-absorption. If therefore the consequences of the wounds from dissection are more serious than such as result from ordinary clean wounds, and which I am disposed to believe they often are, the difference must be attributed to some peculiarity attending them, local or constitutional. It is not necessary that a local irritant, acting chemically, should be received into the mass of blood to produce extraordi-

nary local excitement. The matter of gonorrhœa is commonly a more severe local irritant than the matter of syphilis; and various substances employed in surgery, which furnish no evidence of their absorption, exemplify the same fact. The constitutional excitement is in these cases the legitimate consequence of the inflammation produced by the local irritant, and is either slight or severe according to the seat, nature, and degree of such inflammation. The chemical, therefore, are to be regarded as operating on the same principle upon the constitution as the mechanical irritants, where their tendency is to produce high local inflammation; and their action being not dissimilar it is probable that they act in concert, and that the irritation of an acrimonious substance, superadded to that of a penetrating wound, may determine the extraordinary activity and extent of the local inflammation, and by consequence of the constitutional disorder. *I conclude that it is therefore probable that the irritation in some of these cases, though strictly local, is in its nature such as to act upon the constitution with greater severity than that of similar clean wounds.*" 338.

The last sentence of this extract, which we have taken the liberty to mark in Italics, narrows the question considerably. If the irritation of dissection wounds, "though strictly local," has something in its nature to affect the constitution more than the irritation of clean cuts, we think it is wandering out of our way to look for that something beyond the introduction of a poison which, in numerous other instances, is admitted to be the grand agent of the constitutional disturbance.

Many persons, Mr. Travers observes, are disposed to refer the severity of the inflammation attendant on dissection wounds to peculiar irritability of constitution—instancing the number of students who cut themselves every season, and yet escape with impunity. There can be no question that idiosyncrasy—bad health—the depressing passions—the unusual and unhealthy occupation of dissection—the London air—and probably irregularity and occasional intemperance, must predispose to the reception of a virus, as well as render its effects more dangerous when it is received. This is no more than we see in many other cases where people of good constitutions, cheerful dispositions, &c. escape contagious diseases, while others, under different circumstances, fall ready victims to the prevailing malady. This view of the case, however, does not materially bear on the question of absorption or simple irritation. The predisposition of the individual will facilitate the reception of the poison, and also aggravate the effects of local irritation.

" I consider the constitutional state in the cases of absorption to be as much more severe than that which prevails in a large proportion of

the cases of simple irritation, as the local is less so. The latter present the fever symptomatic of local irritation, or the fever of suppuration, acute or chronic. It takes its form and pressure from the local inflammation. If it be more violent in the first, or more protracted and exhausting in the second stage, it is nevertheless such in character as we are accustomed to see in local inflammations which have a different origin, and we treat it on the same principle. The former, if I judge rightly, is a constitutional before it is, openly at least, a local disease. It may even destroy without exhibiting, if we except pain, a local sign; the local sign may be either scarcely developed, or, on the contrary, may have approached a favorable termination, when the system exhibits symptoms of dissolution. There are, however, some cases of simple irritation, of not very rare occurrence, viz. the cases of true paronychia, or acute suppuration within the sheath of the flexor tendon, in which the general and high excitement of the nervous system is so sudden and peculiar,* that we cannot be surprised where other circumstances favor the conclusion, to find such instances recorded as cases of a poison absorbed. And as respects the constitutional phenomena, they might merit to be so regarded; for there is little, if any difference to be recognized between them in the acuteness of the suffering, the high nervous excitement, and the suddenness of the collapse.†”

In respect to cases of absorption of a poison, it may be asked why the first evidence of its introduction should be furnished at a distance from the part injured, while the part itself escapes with impunity? Mr. Travers admits the difficulty of the question, but attempts the solution of it. He observes that the fact of the intermediate part escaping, in acute inflammation and abscess of glands in which the absorbents of an irritated part terminate, is every day seen in the sympathetic bubo attendant upon gonorrhœa and sores on the penis, mammæ, fingers, &c.

“ ‘The virulent and irritating quality of a poison not formed by a specific inflammation and secretion of the part, as the morbid poisons, but introduced, ready made, as I might say, into the system, as that of decomposed animal matter, discovers itself by the same signs, but greatly augmented in rapidity and intensity, as regards constitutional excitement and pain, and with this remarkable difference—that the seat and extent of the pain and inflammation are invariably diffused instead of the contrary.‡” 342.

“ * Case of Mr. Clifton, p. 294, and of Mrs. C. p. 370.”

“ † The more invariable and severe attack of rigor in the cases of absorption deserves to be noticed. In those of simple origin it is often wanting.”

“ ‡ The tendency to diffused erythematous inflammation from the absorption of animal poisons is exhibited in the stings and bites of insects, and the effects of certain animal substances taken into the stomach.”

The arrest of the animal poison by the axillary glands, in the first stage of its progress, determines the original focus of the inflammation and pain—these glands become congested, and partially obstruct the transmission of the poison into the circulation. The cellular tissue surrounding the glands inflames, becomes swelled with serous effusion, and the inflammation and effusion spread to the axilla and chest. The pain affecting the top of the shoulder may, Mr. T. thinks, be explained by the distribution of the muscular twigs of nerves supplied by the axillary plexus.

“ If this theory be correct, the invariable locality of the primary inflammation, as well as the mere and transient irritation (if any) of the absorbents, is explained. If the poison so insidiously entered the system and mingled with the mass of blood as to excite no primary irritation, the natural sign of resistance to its admission, it would be difficult to assign a reason why its effects should have this or indeed any local manifestation. It is well known that a ligature on the limb will prevent the effect of the viper's poison on the system, and that violent erysipelatous inflammation ensues, as in the case of Mr. Butler, related by Dr. Duncan. The lymphatic glands act as a natural but unfortunately ineffectual barrier to the passage of the poison ; effects not very dissimilar to those of the mechanical impediment, are produced in their immediate vicinity, and are most conspicuously apparent in parts where the connecting membrane is disposed in greatest abundance and laxity of texture. But although the irritant has this local manifestation, its passage is impeded only, not prevented, and the constitution, therefore, frequently exhibits disturbance sooner than the part, which in the instance related, p. 203, proved destructive, even before any visible sign of inflammation appeared.” 344.

The occasional determination of inflammation on the opposite side of the trunk, or on the opposite extremity, is not entirely peculiar to cases of specific irritation—nor common in these. It is altogether inexplicable on any theory which has yet been suggested. The insulated patches of erratic erysipelas—the abscesses which occur at the subsidence of fever—nay, the local determinations of inflammation in general, are equally unaccountable phenomena.

In the cases in which the admission of a poison is undisputed, two or three obvious injuries arise.

“ Is the frequent fatality of these injuries to be ascribed to the condition of remaining animalization which has hitherto resisted the operation of external agents ? or to such an alteration in the quality of the animal fluids by the incipient process of decomposition as merely divests them of the properties of living matter ? or to a state of putrefaction so

advanced, as to be actively disengaging new and deleterious compounds?" 345.

We agree with Mr. Travers, that our present state of knowledge does not enable us to give any satisfactory answers to these queries:—and it is better to confess our ignorance than to assume knowledge which we do not possess.—It is a fact, however, that the larger number of cases of this kind which occur, have their origin from dissection of bodies dead of inflammation, by which an abundant secretion of morbid fluids is accumulated, and amidst which the thoracic and abdominal viscera are handled by the operator. But a historical survey of the cases on record shews us that no condition of the dead subject is exclusively prejudicial, since a fair proportion of the sinister accidents had their origin in the dissection of stale bodies—namely, bodies that had been buried.

“ If, as is probable, at the moment of expiring vital influence, or of de-animalization, new combinations give birth to a specific matter of contagion, it is to be presumed that the ultimate state of dissolution and decay which we term putrefaction, so alters its quality, as to neutralize and render it inert. And it is in conformity with observation that actual putrescency is in some degree a security from the effects of this species of injury. Putrid matters act as a strictly local poison; they irritate and inflame the part wounded and its immediate vicinity, and the constitution is in proportion protected.” 347.

The changes which take place in vegetable bodies at the expiration of life, and prior to their ultimate decay, seem to support the foregoing opinions or rather conjectures; but as yet we know little of the matter. The progress of chemical knowledge will probably one day throw some light on the subject. In the mean time, the pathologist will do well to pay strict attention to the habit of the individual affected—to the nature of the wound—the fatal disease, whether acute or chronic, of the subject whence the poison was received—and the varying state of decomposition in the interval which has elapsed between death and dissection.

Another enquiry into the consideration of which our author enters is, the possibility or probability of a specific contagion being communicable after death, as that of erysipelas, small-pox, or syphilis. Although our author believes that erysipelas is sometimes contagious in the living subject, he thinks the question cannot be decided as to its *post-mortem* transmission by any facts yet in our possession. It is probable, however, he remarks, and scarcely doubtful, “ that a pustular or vesicular disease, like small-pox or cow-pox, retains, for some time after death, the property of communicating the local

poison, by reason of the favourable circumstances in which, for a given time, the virus is preserved." Students dissecting small-pox subjects have had variolous pustules of a spurious description form upon their wounded fingers. This is common; but Mr. Travers never knew an instance in which the constitutional disease was communicated. The effectiveness of the living poison preserved for many months by exclusion of the atmosphere, is obviously a distinct fact, not bearing upon the present question.

A specific morbid secretion, as that of syphilis, is capable of transmitting the constitutional disease from one living system to another. Thus, our author has known an accoucheur with a sore on his finger become affected with ulcer, eruptions, nodes, &c. bearing the character of syphilis, and which were only cured by mercury, in consequence of delivering a female affected with a venereal ulcer in the vagina. But our author has never known an instance of such disease being communicated by wounds received in the dissection of subjects dead of lues or cancer.

"Veterinary surgeons receive the poisons of glanders both from the living and dead animal by inoculating chaps and punctures, for the matter secreted in the cellular abscesses of persons so affected is capable of producing glanders, when introduced into the system of the horse or ass by inoculation. This is sufficient to shew that the specific property of the poison is retained in its passage through the human system, but there is no evidence of its acting on the human body otherwise than as the poison of dead animal bodies. The matter absorbed from the living animal affected indeed in a remarkable instance, which I shall presently detail, the glands at the angle of the jaw, and the mucous membrane of the nares, which are the proper seat of glanders in the horse and ass. This was, however, in common with a similar affection of the same textures in other parts of the body." 351.

Case. Mr. Turner, a veterinary student, injured his finger in examining the head of a horse which had died of glanders. An ulcer followed, with inflammation of the absorbents and cellular membrane of the hand, and symptomatic fever. In a few days an abscess formed on the opposite arm, and another on the lower part of the back. Matter taken from the abscess of the arm was sent to Mr. Coleman, who inoculated an ass with it, and produced fatal glanders. Mr. Turner's health was seriously affected—he became hectic—and was sent to Brighton, where abscesses formed in the lungs, kidneys, and other parts of the body, which ultimately wore him out. Matter was taken from an abscess in one of his knees, with which another ass was inoculated, and died in eleven days glandered. The following extract of a letter to Mr. Travers from Mr. Coleman, we think deserving of a place in our journal.

“ You know that the seat of acute glanders in horses and asses is the secreting membrane of the nostrils, and that in farcy the superficial not the deeper seated absorbents are affected. The matter of both diseases in quality is the same. We can procure glanders from farcy matter, and farcy from glandered matter; and yet it appears that in the human subject, although susceptible of irritation from glanders and farcy matter, and capable of secreting a large quantity of the same poison, the seat and form of the disease are generally dissimilar. As far as my experience goes, the nostrils of the human subject are not susceptible of glandered ulceration or inflammation. In Mr. Turner's case, the superficial absorbents and cellular membrane were the only parts affected; but in other instances I have seen the superficial absorbents go on to supuration and ulceration between the valves of the absorbents, in consequence of local irritation and the contact of farcy and glandered matter, corresponding in a great degree to the same disease in horses. From these facts, and many medical students falling a sacrifice to irritation from wounds in dissection, I have been led to believe that in such cases absorption of some poison frequently takes place. I am aware of the fact, that simple wounds with clean instruments sometimes occasion irritation of the absorbents, but I apprehend it will be found that butchers and other persons in the habit of cutting animal substances in a fresh state, are by no means equally liable to constitutional or even local irritation in the same degree as medical students. I have further to add, that I think it highly probable, that in all contagious constitutional diseases, such as small-pox, measles, lues, cow-pock, hooping cough, and perhaps from absorption of putrid matter, and other animal poisons, the whole of the blood is contaminated. In acute glanders the blood is undoubtedly affected. I have produced the disease, by first removing the healthy blood from an ass until the animal was nearly exhausted, and then transfusing from a glandered horse blood from the carotid artery into the jugular vein of the ass. The glanders in the ass was rapid in its progress and violent in degree; and from this animal by inoculation, I afterwards produced both farcy and glanders. The facts mentioned by Mr. John Hunter to shew that the blood is not infected can be readily explained. The blood, although it may possess materials to irritate certain parts, may not irritate all parts. Calomel may inflame the salivary glands, and increase their secretion, but produces no increase of the semen or synovia. Turpentine may stimulate the kidney to secrete more urine, but has no effect on other glands, although absorbed and circulating with the blood. Most parts of every animal have probably some peculiar susceptibility, and non-susceptibility; so that the same cause will produce different effects.” 356.

Mr. Travers introduces two cases in which the poison was absorbed from the living animal. The first was that of Mr. Nallen, a veterinary surgeon, of Kidderminster, who, while administering a ball to a glandered horse, had matter from his nostrils inoculated into an abraded spot on his thumb. In a

few days the part became painful, the inflammation having an unhealthy appearance. The sore was followed by many others of a similar description, affecting the hand, glands of the axilla, nates, and neighbourhood of the knee-joint. The irritation of these sores deteriorated the general health, occasioning loss of appetite, &c. The blue pill, warm bath, and decoction of sarsaparilla, at length restored Mr. N. to health.

The other case was that of a stout hackney-coachman, who had a chap on his thumb infected by matter from the nostril of his horse. In six hours afterwards, he was seized with violent pain and swelling of the thumb—and on the third day he became affected with cold chills and giddiness, together with total loss of power in his limbs for several hours. The arm was streaked with red lines and excessively swelled. On the fourth day he was taken to Guy's Hospital, where he continued ill for 24 weeks. Superficial collections of matter formed successively in the course of the absorbents, with sloughing of the integuments, leaving extensive ulcers that discharged a fetid and unhealthy matter. The glands under the jaw and in the groin swelled, and he was affected with pain between the eyes and down the nose, and exulcerations of the membrana narium. He had much constitutional illness—loss of appetite—severe pains and swimming of the head—pain in the spine—thick urine—unhealthy motions, &c. Despairing of life, he quitted the hospital, and spent the remainder of the year at home, in a state of the greatest emaciation. He now applied to an old woman, who gave him a decoction of herbs, which he invariably vomited up, but to which he, nevertheless, attributed his ultimate cure, which gradually took place at the expiration of a twelvemonth from the receipt of the infection. Mr. Travers was informed that an ass, inoculated with the matter of this man's sores by Mr. Sewell, died glandered.

In reviewing these cases, and comparing them with those in which the matter was received from the dead animal, we cannot but perceive several points of analogy between them and those cases where the matter was received from the human body in dissection. It is Mr. Coleman's opinion that a poison is absorbed in the human dissection, the result of diseased actions in the living subject. To this opinion Mr. Travers objects, for several reasons, which have already been glanced at. Mr. Travers concludes that the poison is generated after death, and pertains to the process of decomposition in its early stage. At the same time he thinks it highly probable that the irritating qualities and intensity of the poison, and the rapidity of its development may be influenced by the morbid condition of the body at the moment of death.

In the cases of disease produced by contact with the flesh or blood of diseased animals, as those cases of the butchers of the Hotel des Invalides and others, related in the Memoirs of the Academy of Sciences, the symptoms, Mr. T. observes, are altogether different from those following dissection wounds, viz. erysipelas gangrenosum, enormous emphysematous swellings, livid pustules, and tumours ending rapidly in gangrene and death. Mr. Travers can discover no analogy between these and the consequences of dissection wounds; and the same may be observed of those various affections described by different writers in Europe and the West Indies, as following the eating of the flesh of animals that have died of contagious murrain.

Here Mr. Travers introduces an interesting letter from Dr. Farre, who, while practising at Barbadoes, had an opportunity of observing the effects of that singular disease, the "pestis Bovilla," which produces in the human body a malignant carbuncle. This is also produced by the contact of the fluids of the diseased animal, and even by the rudest form of dissection.

Another enquiry of importance is this:—Is there any thing in the character of the constitutional disorder which distinguishes the case of specific from that of simple irritation? Mr. Travers thinks there is not. The disease, he observes, has been mistaken for pneumonia, erysipelas, and acute rheumatism. "The fact is, that the constitutional disorder arises from the operation of the poison as an irritant on the nervous system, and not from the inflammatory action which we see. This is but a symptom, not invariably present, and always comparatively insufficient to account for the constitutional excitement. But inflammation is capable of acting as an irritant of the nervous system, nearly, if not quite as powerful as the poison; and the irregularity and vehemence of the constitutional disorder are occasionally as great in the cases of non-absorption." The following case is a recent example.

Case. Mrs. C. aged 40, of healthy but irritable constitution, while suckling, complained of pain in the knuckle of her middle finger, with slight febrile indisposition. This went off by a dose of salts and some lotion; but two days afterwards it returned, and extended up the arm, affecting the side of the neck. A slight wound was now discovered in the finger, but she knew not how it was occasioned. In a day or two more she became maniacally delirious, and a fulness and tension were perceptible over the flexor tendon of the finger. Her pulse was very quick, contracted, and a little irregular. There was neither absorbent, glandular, nor cutaneous inflammation, but a little fulness from the elbow upwards, and about the subclavian region. Mr. Travers laid open the sheath of the flexor tendons from the second joint to the metacarpus,

when a tea-spoonful of healthy pus issued. Twenty ounces of blood were drawn from the arm—the hand fomented—and calomel and salts exhibited. Next day the delirium was unabated. More cathartics—another venesection—hyosciamus and opium at bed-time. Some inflamed absorbents on the fore-arm—wound in the finger discharging copiously. She sometimes appeared a little better, and at others worse, but in the course of eight or nine days she sunk exhausted. An examination was made, and a long account given of it, exhibiting the diseased appearances in the arm, but these we need not detail. The viscera were not allowed to be examined.

It is a curious circumstance attending this case, that the maid-servant who fomented the lady's hand after the incision made into it, became affected with pain, inflammation, and swelling of one of her fingers, on which there had been no wound or scratch. These symptoms were accompanied by fever, and the inflammation spread to the lower extremity, producing an affection resembling phlegmatia dolens. She was cured by active depletion, and early and free opening of the abscesses.

The laundress, too, who had been employed to wash Mrs. C.'s sheets, had no sooner opened and immersed them in water, than she was overpowered by an effluvium of a peculiarly offensive nature, and instantly complained of a most severe pain darting into the axilla and shoulder. Nausea and faintness followed, and in the evening a rigor. Next day fever and delirium. No swelling or inflammation could be perceived in the painful parts; but two days afterwards, a deep pectoral abscess presented itself, which was opened, and discharged several ounces of healthy pus. She recovered after a tedious confinement.

Mr. Travers is disposed to think that these two latter cases were not mere coincidences.

“ For example, the incessant steeping of the hand in hot fomentations was sufficient to render the skin preternaturally irritable, and the frequent contact in this state with the matter of a sore, might have irritated sufficiently for the production of common whitloe, a disease in many cases of seemingly spontaneous origin. The rapid diffusion of the inflammation over the fascia of the hand is accounted for by the circumstance first mentioned. The laundress's case appears to have been fever excited by the effluvium of morbid secretions. The cause and locality of the pain and of the abscess, which proved critical of the febrile action, I am entirely unable to explain. In neither this nor the former case was there any breach of the integument by which absorption could be facilitated. The laundress was attacked at one and the same instant with nausea and faintness from the stench, and with acute lancinating pain, from the handling of the linen; a woman who was present told me

that she turned as pale as death, and resting her extended hand against the wall, exclaimed in agony, 'Oh God! my arm,' within two minutes of unfolding the sheets. This was surely the operation of a subtle poison on the nervous system. It could only be through this medium that it could operate so instantaneously. Much anxiety of mind prevailed and might have predisposed her to be severely affected, as she considered her livelihood involved in the issue of Mrs. C.'s illness." 382.

In respect to the lady herself, Mr. Travers asks, if she had absorbed a poison, how was it received? She had not been engaged in any culinary operations—the wound was a mere scratch—and she was quite unconscious how she had received it—most probably from a pin. "The difference," says Mr. T. "in severity of constitutional irritation from matter forming under the common fascia, as in what I call fascial abscess, and forming within the proper sheath of a tendon, is not unfrequently the difference of life and death. The former case is the common whitlow—this is the paronychia gravis. The occurrence of the former is as thirty, at least, to one of the latter. *There is no degree of constitutional excitement, however vehement, to which the confinement of matter within the proper sheath of a tendon is not adequate.*" If this last sentence be correct, we have, of course, a key to those terrible constitutional orgasms that take place sometimes where no suspicion of an absorbed poison existed.

In a former part of the volume, Mr. Travers has introduced the interesting case of Mr. Delph, surgeon, of Edmonton, as an unequivocal one of absorbed virus, similar to that of Mr. Clifton, which we have already detailed. In this place, Mr. T. gives us a second attack, which Mr. Delph experienced in the summer of 1824, but which Mr. Travers views as a good specimen of the characteristic difference between the simple and specific injury—to the former of which it belongs. We shall glance at this case, on account of the decisive treatment which was so successfully employed in it.

Case. While examining the body (on the 6th May) of a child that had died of croup, after measles, Mr. Delph punctured his left thumb with the point of the needle—the instrument having penetrated to the bone. Immediate acute pain was felt, and plenty of ablutions were employed. In the evening the pain became lancinating, and next morning the thumb was much swelled and red. Numerous leeches, and then poultices, were applied. By Mr. Travers' advice, a dose of calomel, followed by the black draught, was taken. On the second morning, the absorbents were affected to the axilla, and the whole arm was tense and painful. More leeches were applied. Mr. D. had one or

two slight rigors, and he felt a good deal depressed. Mr. Travers now prescribed venesection to syncope, which required the abstraction of 35 ounces. "From that moment I became, by comparison, easy—a decided alteration was manifest in the appearance of the arm, the pain ceased, except in the thumb, which remained swelled and painful for several days, but by the constant application of poultices, suppurated in the punctured part, and healed kindly in about a fortnight."

"In my former unfortunate accident you will remember, that the scratch in my finger was not noticed until it became inflamed, about sixteen hours after the accident, when I experienced some shooting pain in the part. At forty hours after the accident I had one of the most tremendous shivering fits I ever witnessed, which was succeeded by others, at regular intervals of fifteen minutes. These were followed by delirium and other symptoms of alarming constitutional excitement. Though the arm and hand became swollen, there was no blush to be seen on the integument, nor any indication of inflammation of the absorbent vessels; the integuments of the same side of the trunk, from the spine to the linea alba, took on the same swollen appearance with the arm; this was followed by erysipelas and diffused abscesses, which continued to form over different parts of the body for a period of three years, and at times rendered my existence miserable.'" 390.

We sincerely hope this zealous and intelligent surgeon will never again be visited by such a terrible tax on his pathological researches!

Mr. Travers observes that the occasional approximation of the constitutional symptoms, in the two classes of cases, "naturally leads to the belief that there is nothing in the nature of the malady which puts it beyond the pale of medical treatment in one case more than in the other."

"The difference amounts to this, that the poison is in one case the irritant, in the other the inflammation. In either case the local action may constitute so much of the disease as to demand vigilant treatment; but in the former, the disorder arises from the admission of the poison into the circulation, and in most instances the local action is insignificant, except as it demonstrates the existence and activity of the poison. To take up the local disease in this case as especially important, is to begin at the wrong end. The terms 'poison' and 'specific' have been somehow supposed to convey a mysterious import of incurableness, and we are apt to conclude that our labour is vain, and to yield the contest in despair, when conclusive evidence of absorption is at hand. Nothing can be more contrary to reason than this impression. If a common pathological character, viz. that of over-excitement of the nervous system, be established, the constitutional treatment of the cases will be similar. The difference in rapidity of development, and vehemence of action, must be met by a corresponding activity of treatment. If the pain anticipate other signs of inflammation, if the excitement be so intense and the de-

pression of the nervous system follow so close upon the stage of excitement, as either to disguise the former or abridge it of its ordinary limit; we must not suffer ourselves to be betrayed into a hypothetical belief that the operation of the poison contra-indicates the employment of those measures, which have been found efficacious in proportion as they have been early resorted to, in cases to which these bear a strong and obvious analogy." 392.

Again Mr. Travers says :—" There is nothing in the nature of the irritation induced by specific agents, as the saliva of the poisonous snake or of the rabid dog, which warrants a belief that it resists the operation of remedies, provided the activity of the poison be not such as cuts off opportunity by a sudden arrest of the functions. It stands, in fact, on the same ground as irritation from other and simple causes, as from mechanical injury." We confess that this doctrine does not coincide with the ideas which we have formed of the action of specific poisons. The constitutional irritation arising from a severe whitlow, and that resulting from the bite of a mad dog, have very different *causes*; and as effects are modified by their causes, so we believe that these two irritations are very different, in kind as well as in degree—and, consequently, that the medical treatment must be different. It is true, the constitutional symptoms in poisoned wounds and in common injuries, often bear a great resemblance to each other; but our senses are very bad means of seizing those nice features of distinction which divide diseases of the most different or opposite characters. But, after all, experience is a better guide than theory upon these occasions; and we fear that the success which has hitherto attended the treatment of poisoned wounds will not greatly strengthen Mr. Travers' doctrine of their identity (as to constitutional effects) with other injuries.

Mr. Travers observes that if, from the moment of the shock, reaction fail, the injury is in its nature fatal, from the complete paralysis of the nervous system; but where this is not the case, we have no reason to conclude that the disease is incurable. Certainly not. But the question still presents itself, is the reaction to be met with the same remedies and to the same extent, as reaction from simple injuries? In the one case there is a poison circulating in the system, which Nature is endeavouring to repel—in the other, the cause is local, which makes, we apprehend, a considerable difference in the event. We agree with Mr. Travers that—" the effect of very gentle alteratives (as they might be termed) of the cerebral circulation, to preserve life when trembling in the balance, in the extreme states of excitement and depression, is continually

seen in practice." It is upon such occasions indeed that the judgment of the practitioner becomes particularly conspicuous. The following case may serve as an instance, and it shews the necessity of treating symptoms as they rise, rather than blindly acting on any preconceived or predetermined system.

Case. "I was called a few weeks ago to an infant of nine months, the subject of very extensive burn three days before, whose state of exhaustion was extreme, and considered to be as it appeared, hopeless. The infant was without a pulse at the wrist, cold, sunk, and wan. I directed a tea-spoonful of brandy with three of gruel to be given every half hour until it warmed. This was strictly followed,—the infant revived, and the attendants, encouraged by the manifest improvement, persevered beyond the point prescribed. It became flushed, and when I again visited it the next day, had fallen into the state of apoplectic coma with sonorous breathing, having a fully dilated and motionless pupil. I immediately gave two grains of calomel, with directions to repeat the dose in four hours if it had not operated, and applied a leech to each temple, which bled freely. On the succeeding morning, I had the satisfaction to find the infant in the best possible state, with a steady circulation and lively expression, and from this time it went on without any relapse through the healing process, to complete recovery." 394.

RECAPITULATION.

From a revision of the preceding cases and observations, it appears to our author that affections of the sensorium, such as acute bodily pain or mental anxiety, co-operating with local injury—a burn or a bruise—a laceration or a fracture—an operation or an inflammation—a hæmorrhage or a wasting suppuration—a poison permeating the body—are all so many mischiefs severally competent to produce states of the system which have a very distinct relation to fever, yet over which the remedies usually employed in fever have no control. That some phenomena are common both to fever and irritation is unquestionable—but the combination in fever presents a result totally dissimilar.

"When fever is symptomatic of local inflammation, its character corresponds to the boldness and activity of the inflammation, as in pleurisy or peritonitis, or to its insidiousness of commencement and slowness of development, as in scrofula. The preponderant influence of the nervous system, which characterizes irritation, appears to derange the sympathy and consent, the revolution and duration of actions constituting the paroxysms and types of fever, and referred to the struggles of a vis medicatrix. This fact is exemplified in the state denominated febrile irritation, which is symptomatic of minor injuries, and in the irregular train of symptoms which accompany disorganizing inflammation. In all fevers the nervous system is more or less involved, but

for the most part secondarily or as a consequence, if we except the case of phrenitis ; whereas in irritation from local injuries of a severe description, this system is first, and so affected, as apparently to prevent the formation of fever, and to present a series of symptoms sui generis." 401.

The slightest cognizable forms of constitutional irritation, observes our author, are among those trivial but common ailments which, characterized by languor and uneasiness rather than real indisposition, are usually regarded as hypochondriacal. He believes that these affections originate in a morbid sympathy with some local and temporary irritation. A proof of this local irritation is often obvious, as in indigestible food or some vitiated secretion in the first passages. It is truly astonishing what effects will be produced upon the whole nervous system, and upon the brightest of the mental faculties by an irritation of the nerves of the stomach, the duodenum, or the intestines. Individuals of strong susceptibility, who are unfortunately subject to these internal irritations, are branded with the reproach of hypochondriacism, and are told that they have only to exert the energies of their own minds to drive away the horrible and desponding ideas that harass their imaginations. But no effort of the mind (*per se*) can effect this. The only relief is by improving the condition of the body. Remove the cause, which is always corporeal, and the effects will cease ; but not till then. The reciprocal influence, however, of mind and body, is by no means well understood yet. A triste moral impression will quickly derange the functions of digestion and secretion ; and the presence of the undigested aliment and of the vitiated secretions in the *primæ viæ* will repay with interest the injury which the body has received from the mind. A state of intellectual feeling is then produced which no language can describe, and which is ten thousand times worse to bear than corporeal pain. The miseries of human life are all exaggerated and cloathed in the most terrific colours—while the pleasures of existence can only be contemplated with horror or disgust. Such will often be the condition of an individual one moment, and in the next, after a copious biliary excretion—an imperious excitation—or some sudden and vivid mental impression, he will be completely metamorphosed into a being of an opposite character, with all his intellectual and physical powers in their pristine vigour !

Some hilly walks—brisk exercise—
Fling but a stone, the giant dies !

We shall, ere long, take up this interesting subject more

fully, and hope to be able to throw some light upon many of its abstruse points. But to return.

Mr. Travers observes that we may freely admit, and without any reproach to our art, the utter hopelessness of that state of direct and extreme prostration which sometimes supervenes upon injuries, not in their own nature mortal. Still it is proper and necessary to study the phenomena of diseases over which we have, at present, little or no control—for it is impossible to predetermine the line beyond which a right understanding of theory, and a consequent right application of principles may not enable us to push our triumphs. Mr. Travers proceeds to recapitulate the leading points of the evidence presented to the reader in the preceding chapters.

“ In the fatal cases of ‘ BURN’ it will be seen that the state of prostration was consentaneous with the infliction of the injury; the period of survival varying from eight to fifty-eight hours, and inflammation had no share in the results.

“ In the fatal cases of complicated injury, under the heads ‘ Fractures,’ &c. and ‘ Operations for recent injuries,’ there is some variety as regards the accession of the symptoms of prostration. Four days is the extreme period to which life was prolonged. The results in these cases were also independent of inflammation.

“ The fatal cases of lithotomy, mentioned under the head ‘ Operations for chronic diseases,’ were too rapid for inflammation to have any share in the results. Indeed none of the symptoms proper to the operation were present.

“ The third section, which treats of ‘ Inflammation ensuing upon injuries and operations,’ presents these symptoms setting in at a variable but considerably later period, as was to be expected, the inflammation standing in the relation of exciting cause.

“ In the fourth section on ‘ Hemorrhage and colliquative Suppuration’ the symptoms of prostration take a measure strictly according to the exciting cause—more rapid if from hemorrhage or its consequences, erysipelas or gangrene; slower if from wasting suppuration.

“ Under the head ‘ Poison’ I have included cases which, from their origin and circumstances, bear an ambiguous character, and which have been generally classed with those distinctly referable to this source of irritation. My motive in doing so was more forcibly to illustrate by comparison and contrast the points of distinction between the genuine and the spurious cases. In those, as I consider, cases of absorption, which terminated fatally, the appearance of the symptoms was alike early and the career rapid;* whilst those which recovered strongly resembled each other in the protracted disorder, local and constitutional, which supervened.† On the other hand in those cases in which the

“ * Dr. Pett’s, Mr. Dease’s, Mr. Newby’s, &c.”

“ † Messrs. Delph’s and Smartt’s.”

symptoms are referred to the character of the injury and not to the poison absorbed, all the variety which might be expected is observable, in the accession, extent, and duration of the symptoms, according to the situation and severity of the local mischief.* These therefore properly belong in my arrangement to the third section: viz. Inflammation ensuing upon injuries and operations.

“ I should thus epitomize the symptoms indicating the two forms of prostration:—

“ 1. Prostration without re-action is marked by universal pallor and contraction of surface, shuddering, very small and rapid pulse, astoundment of the mental faculties, generally a dilated pupil, shortened respiration, dryness of the tongue and fauces; indistinctness, and at length cessation of the pulse at the wrist, stupor, oppressed and noisy respiration, coldness of the feet and hands, involuntary twitchings, relaxation of the sphincters, confirmed insensibility, stertor, and death.

“ 2. Prostration with excitement is marked by the signs of languor and stupor or drowsiness in the commencement,† to which, after a variable interval, succeed rigor, precordial anxiety, restlessness, jactitation; a rapid and bounding pulse, oppressed respiration with frequent attempts to sigh, flushed countenance, contracted pupil, dry heat of skin, parching thirst, rejection of liquids taken into the stomach, incoherence and wildness of expression, sometimes amounting to fierce delirium. This state is succeeded by exhaustion marked by somnolency, a profuse chilly and clammy sweat, a haggard and livid aspect, a small irregular or fluttering pulse, innumerable rapid, panting respiration, passive convulsions, hiccup, and subsultus, the stupor and stertor of apoplexy, and death.” 407.

The above are outlines of the general character of the two forms. There are some varieties. A variety of the first form consists in little more than a state of continued languor and faintness, with coldness and sleepiness verging on deliquium, the pulse and breathing being scarcely perceptible, and terminated by convulsions. A variety of the second form consists of an alternation of coma and convulsive paroxysms, in which the features undergo the contortions and fixedness of epilepsy, vehement maniacal ravings, and impotent attempts to rise from the bed, with an incessant muttering, terminating in exhaustion.

These are extreme states. There are others in which the symptoms of prostration gradually give place to a partial and

“ * Messrs. Clifton's, Brayne's, Slight's, &c.”

“ † These, like other of the symptoms enumerated, are of course subject to exception. Hours have sometimes passed away without the occurrence of an alarming symptom, in which case a severe rigor, or several at short intervals, generally open the attack; in other instances this symptom is wanting.”

defective reaction, protracting life, but faintly improving the prospect of restoration, which remains doubtful for several days in succession. Or, on the other hand, an efficient and healthy reaction may be quickly set up, consequent upon symptoms threatening the most unfavourable issue. This uncertainty of termination serves to shew how much the event is to be ascribed to the continued operation of the irritant—to the continued sense of injury (if it may be so expressed) which the constitution feels in one case more than in another.

Mr. Travers remarks that he has, again and again, left the bedsides of patients brought into the hospital pulseless and apparently moribund, without any apparent external injury, having suffered falls or blows so serious as to have induced the state of prostration to this alarming extent, and yet he has found them on the succeeding day, (to his great surprise) restored to the tone and tranquillity, comparatively speaking, of health. Reaction has, in these cases, been spontaneous, or nearly so, although gradual. Such patients have been supposed to labour under ruptures of the viscera or large blood-vessels—and the state of prostration to have been induced by the complication of the injury with internal hæmorrhagy :—and it has been only by the gradual return of healthy circulation, freedom of respiration, and corresponding sensations of relief, that this erroneous supposition has been corrected. “Now had such persons suffered topical injuries of a severe though reparable description, it is to my mind more than probable that re-action would have failed altogether ;—but had it, by favour of circumstances, been established, it is at least equally probable that it would have taken the form of excitement.”

In other cases, days have elapsed before a perfect reaction, with relief, has been obtained, marking the most intense degree of shock, in the abstract, and shewing that complicated causes operate to render it destructive. In a large proportion of the graver accidents, the constitution recovers slowly from the first shock of the injury. The re-action is either deficient or in excess—as is additionally demonstrated by the unfavourable changes which take place in the condition of the parts injured.

“To conclude, the great mark of distinction between the cases of local injury which proceed steadily forward to convalescence, and those which place the life of the patient in peril, is the degree of implication of the nervous system. It is not well that this system should be unaffected, but the contrary. I have already adverted to that mode of irritation inseparable from any and every disease, which I consider to be neither more nor less than an extraordinary sympathy, rousing the powers of the system to a due resistance or exertion, and thus directly or indirectly promoting the process of recovery.” 411.

Our next and concluding article will contain the following important subjects :—the theory of irritation—reciprocal relation of the vital functions—derangements of the nervous system, physical and functional—PATHOLOGY and TREATMENT of direct constitutional irritation—of the state of prostration, without re-action—of re-action—of constitutional irritation from injuries, &c. We shall then have laid before a wide range of the profession, one of the most extended analytical delineations which has ever been given of a medical work—a procedure which, we think, pays the author a higher compliment than can be conveyed in language however adulatory.

VI.

Transactions of the Medico-Chirurgical Society of Edinburgh, instituted, 1821. Vol. ii. pp. 411, with plates. May, 1826.

We were quite delighted to see a second volume so soon launched forth by the Northern Medico-Chirurgical Society—a circumstance that evinces great intellectual fertility in the neighbourhood of Salisbury Crags, as compared with Lincoln's-Inn-Fields—Bolt-court—or even the courtly Temple of Apollo, in Pall Mall East. As Helvetia's rugged Alps have been celebrated by the poet for producing abundant crops of—

“ Man and steel—the soldier and his sword ;”

so the flinty-hearted “ Auld Reekie,” is renowned above all other cities, for her fecundity in conceiving and bringing forth such myriads of grave doctors and learned works that irrigate and fertilize the parched and thirsty intellectual soils of half the world. Well might the Edinburgh school of medicine exclaim

“ Quæ regio in terris nostri non plena laboris ?”

The Northern Council appear to know what they are about. They naturally expect that, among the numerous “ tentamina medica” of the modern Athens, some straggling “ gems of purest ray serene” must occasionally turn up, whose corrations may illumine the volumes of their transactions. The thought is a lucky one, and may prove fortunate—at all events, the procedure is perfectly legitimate, and we hope it will conduce to the benefit of both the Council and the authors of the theses. These last are often deterred from publishing in a

separate form, by the natural timidity which attends authorship, but, like gregarious animals, they acquire courage when in company with a number of their own species. They are, therefore, under considerable obligations to the Medico-Chirurgical Society of Edinburgh for undertaking the charge of their introduction into public life, without any of those troublesome and expensive circumstances which usually attend the operations of the press, when worked for private use.

The Council are well aware that the greater number of inaugural dissertations are mere compilations of the most superficial kind—that another portion contains little more than juvenile hypotheses—and that very few indeed will bear to be taken from under the protection of their kind patron, that is, the Latin language, to be addressed to the stern public in the mother tongue. Let the Council bear this in mind, and take care how they fish in troubled waters. We shall now proceed to notice the papers seriatim.

ART. I.

Account of the Exanthematous Ophthalmia, with Observations on its Treatment. By JAMES WARDROP, Esq.

In a former paper, Mr. Wardrop observed that there were several distinct species of ophthalmia not accurately described by nosological writers, but which it was important to distinguish. Besides rheumatic inflammation of the eye, there is another, requiring a peculiar treatment, and possessing a distinct character, which has been usually confounded, Mr. W. thinks, with scrofulous inflammation, but which is different therefrom. Mr. W. admits, however, that the exanthematous ophthalmia very often appears in the scrofulous constitution, but only in consequence of such constitutions being more liable to many other diseases. We shall introduce the following graphic delineation of the disease in the words of the ingenious author.

“ The species of ophthalmia, to which the term Exanthematous is here meant strictly to apply, is so denominated, from being always either accompanied or preceded by some eruptive disease. Eruptions of the scalp, and discharges behind the ears, so frequent in children, are the affections with which this ophthalmia is most commonly connected. These diseases alternate with the disease of the eyes, the latter becoming affected, when the eruption or discharge disappears; whilst, when either of these returns, the eyes recover. This ophthalmia also sometimes succeeds measles, scarlet fever, and other exanthematous diseases, but usually appears a considerable time after these affections have subsided,

and when some eruption about the head seems more immediately connected with its appearance.

“ The symptoms of the exanthematous ophthalmia are very characteristic ; for, besides being connected with eruptions, and confined to young people, the excessive intolerance of light, the enormous secretion of tears, and the relief from forcibly squeezing the eyes, are symptoms quite peculiar. The patient afflicted with this disease, can scarcely hold up his head, and if he is desired to open his eyes, he is affected exactly as if he were looking on a mirror reflecting a bright sunshine, every attempt causing a profuse gush of tears, and being instantly succeeded by a violent and involuntary squeezing of the eye-lids, and knitting of the eye-brows. He excludes all light, not only by holding down his head and squeezing the eye-lids together, but by pressing a handkerchief firmly on them, or by resting his face against a chair in some dark corner of the room. When in bed, he lies with his face buried in the pillow, a circumstance, which of itself points out the peculiarity of this inflammation and distinguishes it from all others.

“ The intolerance of light is always most severe in the morning ; but in the afternoon it sometimes remits so much, as to allow the patient to open his eyes, and see to a very considerable degree, for some hours. The tears, besides being of an extraordinary quantity, are of an acrid, irritating quality ; producing violent paroxysms of sneezing, scalding the cheeks, the alæ of the nose, and the lips ; so that these become inflamed and swelled, and sometimes covered with pustules and cutaneous ulcerations. The eye-lids are also swelled, and have turgid veins on their surface. On trying to force them open, a torrent of tears gushes out, and it is not without occasioning great pain, that a small portion of the globe can be exposed. An attempt to get a view of the cornea gives great pain, and it is almost impossible to succeed. The palpebræ, as well as the sclerotic conjunctiva, are but slightly reddened ; the vessels appearing as a few distinct trunks, instead of the diffused redness observed in many other inflammations. In general, both eyes are attacked with this disease, though one more violently than the other.” 4.

With these local symptoms there is more or less constitutional excitement. The pulse is frequent, the tongue white, the primæ viæ disordered, the abdomen tumid, skin sallow, emaciation. The disease sometimes remains in its aggravated form for many days or weeks—at other times it remits, and the eyes can be opened for a few days, after which it recurs as violent as ever. The constitutional symptoms vary in like proportion ; and in this way Mr. Wardrop has known the complaint continue for many months, and even years. When the eruption on the scalp recurs, or the discharge behind the ears increases, the ocular inflammation generally subsides, and the cornea can be examined. Then will be seen a greater or less degree of vascular turgescence in the sclerotic coat, and palpebral conjunctiva, together with one or more specks on the

cornea, and even sometimes a distinct ulcer. These, however, are trifling, and indeed there is nothing more remarkable in the history of this disease than the slight injury which the organ sustains, after being long and severely affected. There is no puriform or morbid secretion from the meibomian glands in this inflammation; nor has Mr. W. ever known the structure of any part, except the cornea, permanently changed—a fact which renders it probable, he thinks, that the true seat of the inflammation is in the conjunctiva.

Treatment. The general or local depletion, the ointments, opiates, collyria, &c. which relieve some of the other inflammations of the eye, have little or no influence on this species of ophthalmia. And yet it is a disease as much under the control of treatment as most others. Local means, especially in the commencement of the disease, should be confined to cleansing the eyes with warm water, as it will be invariably observed that, as the constitutional ailments abate, the local symptoms will yield, and, in many instances, will be completely removed by the general treatment alone.

“ The general treatment which is commonly necessary for the cure of the exanthematous ophthalmia, consists of first completely evacuating the bowels, and afterwards regulating them; of giving alterative and tonic remedies; and of producing an artificial discharge. Even when this ophthalmia appears in a feeble and emaciated child, it will usually be found, that, by the exhibition of purgatives, feculent matter, both unnatural in quantity, and of a bad quality, will be evacuated; and, until its evacuation has been effected, other remedies avail little. One grain of calomel with three of rhubarb, given at bed-time, and repeated every other night, four or five times, whilst jalap or senna is taken on the alternate mornings, will generally answer the purpose of bringing away the feculent contents of the primæ viæ. But whenever the quality of the evacuations improves, these medicines must be given with caution; and one dose of the rhubarb with calomel, given only once in six or eight days, and the senna or jalap occasionally, will be sufficient. For though the greatest benefit will be obtained by evacuating the bowels, violent purging will be found equally prejudicial. When the treatment has been so far advanced, that only one dose of calomel appears necessary in six or eight days, then at this time tonic and stomachic medicines may be advantageously administered. Of these I have found none so generally useful as the carbonates of soda or potass, either given singly, or combined with rhubarb and the bitter infusions. In some instances the mineral acids have been very useful, and also the preparations of iron. Whilst using either of these remedies, much attention is also due to food and habits of life. All wines and malt liquors are particularly hurtful, and the patient should live chiefly on farinaceous

vegetables, with but a very small proportion of animal food. The body should not be loaded with clothes, and the head particularly should be slightly covered; protecting the eyes with only a single and narrow fold of black silk, hanging loosely over them, and not wearing a large bonnet. The hair ought to be cut very short, and the greatest advantage will be found from sponging the head and neck with water every morning; using it at first of an agreeable temperature, and making it colder by degrees, particular care being taken to dry the head well afterwards." 8.

In some cases additional means may become necessary, as a succession of blisters behind the ears, or one occasionally to the nape of the neck. Or the antimonial ointment may be substituted, so as to produce a plentiful crop of pustules on the scalp. Frequently, when the intolerance of light and the excessive lachrymation are subdued, the vessels of the palpebral conjunctiva will be found distended with blood. A scratch with a sharp-pointed instrument will give issue to an astonishing quantity of this fluid, with remarkable relief. It may be usefully repeated a few times in such cases. If these scarifications prove insufficient, a little of the red oxide of mercury ointment, introduced within the eye-lids, will be followed by a decided diminution of the symptoms. When specks or ulcerations are perceived on the cornea, the stimulating ointment ought to be re-applied, at intervals of four or eight days, until the transparency is restored. Great care should be taken to prevent relapses, by attention to the functions of the digestive organs, and by keeping up a drain from the neighbourhood of the head by a seton or issue. Country air, if attainable, will be of great advantage.

We need hardly say that this paper of Mr. Wardrop's will prove interesting to the medical practitioner, and is creditable to the acute observation and accurate discrimination of the author.

ART. II.

Observations on the Nature, Causes, and Treatment of Beriberi.

By WILLIAM HAMILTON, Esq. Surgeon, H.E.I.C.S.

The singular disease which forms the subject of Mr. Hamilton's communication, is principally, if not entirely, confined to the Island of Ceylon, the Malabar coast, and that tract of country stretching from Madras to Ganjam in length, and about forty miles in breadth. It is most prevalent during the decline of one monsoon and setting in of another, "when the atmosphere is completely loaded with cold, raw, damp vapours, and the vicissitudes of temperature are greater than at any other period of the year." It seldom occurs at a distance exceeding

sixty miles from the sea. A residence of some months in the locality where the disease prevails, seems necessary to its production. There is no constitution exempted from an attack of Beriberi; but those who are sedentary, debauched, and much exposed to vicissitudes of weather are most subject to the disease. One attack also leaves a predisposition to another. The old and infirm are more liable than the young and active.

Mr. Hamilton had an opportunity of seeing the complaint under two forms only, viz. that in which the symptoms were at first mild, and gradually increased in severity—and that in which the symptoms were, even from the first, rather urgent, increased rapidly, and, unless speedily relieved, proved fatal.

The two first cases which fell under Mr. Hamilton's care were treated on the plan recommended by Dr. Christie, (calomel, squills, and other diuretics) but both terminated unfortunately. Mr. H. now examined the body of the second patient, and found an ounce of serum effused between the pia mater and tunica arachnoidea, with two or three dark red patches, exceedingly vascular, extending into the substance of the brain. There was also effusion into the ventricles, and at the base of the brain. The lungs were loaded with dark-coloured blood, and water was effused into both cavities of the chest. The heart was healthy, no effusion into the pericardium, but this bag exhibited marks of inflammation both internally and externally. The liver was larger than natural, and appeared still more loaded than the lungs. On examining the spinal marrow, evident marks of congestion were found, particularly in the dorsal region. Three or four pints of effusion had taken place in the abdomen.

These post mortem appearances coincided a good deal with those published by Mr. Ridley, in the Dublin Hospital Reports, and determined Mr. Hamilton as to the nature of the disease. He became convinced that it arose, in a great measure, from obstructed circulation, in consequence of congestion in the internal parts, more especially the liver and lungs, and that beriberi consequently could not be a mere disease of debility, as supposed by Colquhoun, Hunter, Christie, and others—but, on the other hand, that it was a disease, in the treatment of which, blood-letting might be used with the greatest prospect of advantage.

“The prevalence of the disease,” (says Mr. H.) “during the change of the monsoons, may be accounted for, by the damp, loaded state of atmosphere, and the extreme vicissitudes of temperature, which, by suddenly checking perspiration and producing (to use the words of Dr. Johnson in his very excellent Essay on Cholera) ‘unparalleled atony

of the extreme vessels, debilitated by previous excess of action, break at once, and with violence, the balance of the circulation. The extreme vessels of the hepatic system sympathising with those on the surface, completely arrest the reflux of blood from the portal, celiac, and mesenteric circles; hence that gorged state of the internal parts, which appeared in the case I have related, and which, in a still more marked degree, is found to exist in the cholera of India." 21.

From these considerations, Mr. Hamilton resolved to employ venæsection in the subsequent cases that fell under his care. He, therefore, abstracted 30 ounces of blood from the next patient, which gave immediate though temporary relief, and encouraged him to proceed to the abstraction of 35 ounces more, in the course of the next twelve hours, the dyspnœa and other symptoms having returned. Immediate recourse was now had to mercury, on which Mr. H. confidently relied, if he could bring the system under its influence. He accordingly directed 20 grains of calomel with 30 drops of laudanum, to be given, and a vapour bath to be applied. In an hour and ten minutes the calomel was repeated, with the laudanum, soon after which the patient fell into a sound sleep, and awoke in a copious perspiration. His pulse had now increased in strength, and the dyspnœa was not near so distressing. The calomel was repeated, with gamboge, and afterwards the calomel alone, in scruple doses, every three or four hours, until ptyalism was established, which required more than forty hours. Every unfavourable symptom now disappeared, and the patient complained only of soreness of mouth.

In another case, there was, from the first, violent and continued vomiting, which yielded, however, to large and repeated doses of calomel and laudanum, with a strong and heated sinapism to the region of the stomach—a remedy which Mr. H. found singularly successful in speedily allaying the violent gastric irritability of bilious remittent fever and cholera, where calomel and laudanum had failed.

In one case, where the individual was of rather a full habit, bleeding was thrice employed, the patient losing, in all, more than 65 ounces of blood, within thirty hours—"and that with the happiest effects." This practice was adopted too, although the dropsical and other symptoms had existed for nearly two days before Mr. H. saw the patient. The quantity of blood to be drawn must, of course, be regulated by the symptoms in every particular case, as well as by the age and constitution of the individual.

Dr. C. Rogers, who practised for some time in Ceylon, has communicated to Mr. Hamilton the particulars of two cases

treated by blood-letting, in which there was a striking alleviation of all the symptoms, as soon as blood was abstracted. With the following extract from Mr. Hamilton's paper, we may conclude this short notice.

“ In cases where there exists irritability of the stomach, or bowels, or of both conjoined, as is very frequently the case in some of the diseases of India, or where my object is the speedy production of ptyalism, I never think of exhibiting calomel in smaller doses than from 15 to 20 grains—and in the propriety of this I am confirmed by the experience of others. In such doses it seems to act as a sedative, in so far as it allays vomiting, removes griping and spasm, and frequently procures for the patient sound sleep; while in smaller doses, as from four to seven and even ten grains, it operates as a purgative, often producing considerable griping, with sickness and a general sense of lassitude. Experience has likewise established the importance of this medicine being given in the form of powder instead of pills, particularly in cases where the bowels are much affected, as in dysentery or cholera morbus; for in such cases pills have been frequently known to pass off nearly as they had been given.” 28.

One case is given in detail, but it is unnecessary to state any of the particulars in this place.

ART. III.

Description of two Children united together, and now living in the Village of Arasoor. By ANDREW BERRY, M.D.
With a Plate.

According to the title of this paper, and the date of Dr. Berry's letter, (Jan. 1824,) these children should now be upwards of twenty years of age, and still living; but, in the body of the communication, we find they died nearly fifteen years ago. We are not very partial to the recital or record of monstrous deviations from the general form or structure of the human body, as they seldom lead to any useful conclusion, physiological or otherwise;—but as human curiosity must be gratified occasionally by some marvellous tale, we beg to inform all our curious readers, that these twin sisters were brought forth without any difficulty—that they were connected by their sternums—that they had only one umbilicus—that one of them was entirely nourished, for some months after birth, “by what it received from the stomach or other part of the alimentary canal of its sister”—and that, finally, one of them died when nearly seven years of age, which necessarily proved fatal to the other. No dissection took place, and consequently we are left in ignorance of the precise nature of the malformation which united these children.

Immediately in succession, is a short account, by Dr. Hastings, of another monster, in whom the upper and lower extremities were entirely wanting. The cupidity of the parents proved destructive to the offspring, and subversive of the object they had in view. The child was seized with pneumonia, while hawked about for exhibition at fairs and markets, and died. We see nothing worthy of notice in the dissection which Dr. Hastings made of this memberless trunk. There are drawings of this and the preceding monster. These drawings have enhanced the expense, without adding to the value of the volume.

ART. IV.

Observations on Chronic Inflammation of the Iris. By ALEX. WATSON, Esq.

In this disease, which is of very slow progress, effusion of lymph on the capsule of the lens and inner surface of the cornea, adhesion of the iris, and contraction of the pupil, frequently take place to such an extent as to cause complete blindness. The following is Mr. Watson's description of the disease, omitting his references to the figures in the plate which accompanies the communication.

" In this disease, the first change observed in the eye, is a partial irregularity of the pupillar margin of the iris, at one or more points. This irregularity of the margin of the iris, alters, of course, the form as well as the size of the pupil. In some cases, it is more dilated, and in others more contracted, than natural. The iris loses its proper colour; and its pupillar margin becomes partially or wholly drawn backwards, in consequence of its partial or complete adhesion to the capsule of the crystalline lens. The motions of the pupil, at the same time, become impeded, in proportion to the number and extent of the adhesions. In some cases, the adhesion of the iris takes place to a considerable extent at one point; in other cases, the adhesion takes place to a smaller extent, at several points, which, in the progress of the affection, by extending, become one continued adhesion, involving the greater part of the whole of the pupil. That part of the iris between the adhesion and the ciliary margin, assumes a convex form, by projecting to a greater degree, at this part, towards the cornea, than it does in its healthy state. By this projection, the size of the anterior chamber of the aqueous humour is diminished, and that of the posterior chamber is proportionably increased.

" Where the iris adheres to the capsule of the lens, an effusion of lymph may, in general, be observed, forming the connecting medium. The capsule of the lens generally becomes opaque; and frequently small portions of lymph, and sometimes of pigment, from the posterior surface of the iris, can be seen upon this capsule. In some cases a de-

position of lymph takes place upon the inner surface of the cornea, occasioning a dimness and opacity of this part. Vision gradually becomes impaired, as the disease advances, till it is quite destroyed. And this last symptom (impaired vision) is commonly the only one by which the patient is conscious that mischief is going on in the eye." 44.

It is to be regretted that nothing satisfactory can be said of the treatment. Mercury failed to cure the disease—and so, we suppose, did every other medicine, since Mr. Watson does not mention any.

ART. V.

Account of the Yellow Fever, as it appeared in the Queen's Regiment in Barbadoes, in 1816 and 1817. By ALEXANDER RALPH, M.D. Assistant-Surgeon to the Regiment.

This is one of the three inaugural dissertations introduced into this volume of Transactions. However faithful may be the narrative, however accurate the descriptions, which Dr. Ralph has laid before us of this fearful scourge, still it must be acknowledged that the subject of yellow fever is now more than a thrice told tale, and that Dr. Ralph's paper presents nothing which has not been reiterated repeatedly by former writers. Still it contains many judicious observations and acute remarks on the causes, course, and treatment of yellow fever, which must prove interesting to those whose fortunes or misfortunes lead them to the scene of its devastations. We were much pleased to find Dr. Ralph doing justice to the venerable and truly philanthropic Jackson, whose writings have not been duly appreciated by the profession in this and other countries. They contain, along with some peculiar, perhaps erroneous notions, the best description of West Indian fevers that has ever been published—and the truest pathology of those merciless endemics.

ART. VI.

Observations on the prevailing Opinions respecting Respiration and Animal Heat; with Experiments. By C. S. B. WILLIAMS, M.D.

This is the second "tentamen" which the Council has selected for publication; but, being a purely physiological discussion, and consisting chiefly of comments on the opinions and doctrines of others, we are unable to afford space for any analysis of it here. Dr. Williams has fairly stated the merits and defects of the two most prevailing theories respecting respiration in this country, and made some judicious remarks of his own. This paper will be read with interest by most of the

junior members of medical society, to whom physiology is always more alluring than therapeutics, their minds being less distracted by the multifarious concerns of active practice than those of their elder brethren. Dr. Williams appears to consider animal heat as the result of neither purely chemical changes nor vital actions—but as the consequence of both combined.

“ From a consideration of all the facts which I have now stated, I am led to the belief that animal heat is the result of chemical changes proceeding in the blood, and which I have endeavoured to particularise as those resulting from the functions of *respiration and secretion*, and that a due performance of these functions is requisite for the healthy and uniform preservation of animal temperature.” 116.

ART. VII.

Case of Extraction of Calculus from the female Bladder, by Dilatation of the Urethra. By ROBERT HAMILTON, M.D. Secretary.

The very few trials which have yet been made to dilate the female urethra, for the extraction of calculi, have not sufficiently decided the superiority of the sudden or the slow mode of procedure. The following case is brought forward by Dr. Hamilton with the view of helping to decide this question.

Case. A hale, stout woman presented herself at the New Town Infirmary, labouring under symptoms of stone, of six or eight years' duration. She was examined, ordered some opening medicine, and next day Dr. H. introduced Weiss's dilator turning up the screw two teeth. In an hour, much pain had been produced, and some drops of blood oozed from the urethra. The screw was turned another point, with great increase of suffering. An opiate given. In an hour and a half, these sufferings had increased much, and more blood oozed from the meatus. The screw was turned to the 4th division on the scale, and afterwards, at short intervals, two points more were turned, when the diameter of the passage was dilated to the extent of three quarters of an inch. The whole had occupied six hours. The instrument was withdrawn, and the forceps easily introduced. The stone was grasped, but could not be brought away. Dilatation was again effected, and the screw raised to the 7th point on the scale. An opiate was administered, and the dilator left in for the night, which was passed in great torture, and without any sleep. Next morning the screw was raised to the 9th point, making the bore of the meatus $1\frac{1}{4}$. The patience of the woman was now exhausted, and extraction was again attempted, but without success;—the stone being too large to come through the dilated passage. The bistoury was therefore introduced, and Dr. H. cut at the angle formed by the junction of the bladder and urethra, in a direction upwards and outwards. The bridge which had obstructed the progress of the stone

was thus divided, and the calculus was easily extracted. No inconvenience followed, and the woman was soon able to return to her avocations. The stone weighed an ounce, and measured four inches and a half in its long circumference, by one and a quarter in its short. Eighteen hours had been expended in the dilatation. Dr. H. comes to the conclusion, from this case, "that, when a stone is large, it will not, in all cases, be possible, with the utmost care, to effect the necessary dilatation in a short space of time, and that the more gradual dilatation, carried on for several days, by means of the sponge tent, will prove safer and easier than the more rapid operation of the new invented dilator." As far as one case can go, Dr. H. is borne out in this conclusion. But the stone was very large in this instance—and, at all events, it is but a single case.

ART. VIII.

Case in which a Calculus of considerable size was extracted from the Female Bladder, by gradual dilatation of the Urethra. By ALEXANDER RAMSAY, M.D. of Dundee.

This was a lady, 67 years of age, who had been afflicted with symptoms of calculus for 20 or 30 years. These symptoms had disappeared for a time, and afterwards returned; and at the period when Dr. Ramsay was consulted (1822) the constitution had sympathised with the local irritation to an alarming extent. On sounding, Dr. R. discovered a stone of some magnitude. The vagina was contracted, with some thickening and induration around the urethra, neck of the bladder, and rectum. The cutting operation was, under all circumstances, deemed unadvisable, and dilatation was readily submitted to by the patient.

Two weeks were spent, with very partial success, in dilating the urethra by sponge tents, which were generally expelled in a few hours after their introduction, but sometimes remained a whole night, though not without distress. Weiss's dilator was found much more effectual than the tents, and Dr. R. succeeded in expanding the urethra more and more every day, from 20 to 30 minutes at a time, until, in the course of ten days, he could easily introduce the fore-finger into the urethra, and examine the calculus. After a considerable dilatation, the forceps was introduced, and fortunately the stone was seized in a good position, and extracted, with some difficulty, and a good deal of pain to the patient. The chief resistance was experienced at the orifice of the urethra. The long circumference of the stone was $5\frac{1}{2}$ inches, by $3\frac{1}{2}$ in the short. It weighed $7\frac{1}{2}$ drachms. Dr. R. thinks it would have been impossible to have extracted the stone in this way through the

urethra, had not the dilatation been effected in a very gradual but decided manner for some weeks previous to the operation.

A good deal of constitutional irritation and local inflammation followed the extraction, but these subsided, and the functions of the bladder and urethra were soon restored. The old lady now enjoys good health.

ART. IX.

Cases illustrating the Contagious Nature of Erysipelas, and its Connexion with a Severe Affection of the Throat. By JOHN STEVENSON, M.D. of Arbroath.

The occasionally contagious character which erysipelas assumes, is well known to all who have paid any attention to the complaint in the wards of hospitals; but its connexion with an affection of the throat has not, as far as we remember, been particularly noticed by systematic writers, though many instances are related by individuals, where the inflammation appeared to spread from the fauces to the external integuments. This affection of the throat occurred so frequently in persons who had been much with erysipelatous patients, that Dr. S. could not doubt their identity; and he came to the conclusion that it was, in reality, erysipelas of the fauces, spreading occasionally to the adjacent parts in different directions. The febrile symptoms by which the complaint was ushered in were generally severe, even in the milder cases—pulse full and frequent—severe pain of head and back—restlessness and great heat of surface. The affection of the throat came on at periods varying from two to six days after the accession of the fever.

“ It commonly began with a red or purplish blush, more or less extensive, over the velum pendulum and uvula, accompanied with very little tumefaction, but with considerable pain in swallowing; often, after a few days, excoriation of the inflamed surface followed, with superficial ulceration, which at times soon healed, but at other times spread and discharged a good deal of purulent matter. In many cases the disease terminated without extending farther than the parts mentioned, but in a few it spread to the larynx, producing a state of respiration very like that of idiopathic croup; in others it extended to the pharynx and œsophagus. When the last became affected, fluids and even solids could be partially swallowed without much apparent difficulty; but after a few seconds, pain was felt in the course of the gullet, an inverted action began, and they were wholly or partially returned to the mouth. In some protracted cases glandular swellings appeared in the neck, which suppurated externally.” 129.

The disease was readily distinguished from cynanche tonsil-

laris, by the want of swelling, by the redness being more diffused, and by the pyrexia being generally greater than could have been expected from the degree of local affection. From croup it was distinguishable by the larynx being affected in a small proportion only of the cases, by the inflammation not commencing there, and by the age of the patients. From scarlatina it was distinguishable by the absence of cutaneous eruption, and by its attacking persons who already had had that disease.

“ Copious and repeated bleeding, with brisk purgatives, and, in every case where the throat was severely affected, the application of a large number of leeches to the neck, appeared to me to be the mode of treatment which was most successful. All the cases that came under my management, both of the common erysipelas, and of the affection of the throat, were treated in this manner. I have stated the event of all those detailed, and it affords a fair specimen of the general results of the cases which came under my care,” 130.

A considerable number of cases, in a very brief form, are appended to this account, all of which recovered. These we need not particularise in this place. But we may remark that, although the treatment detailed above was very proper and successful in Arbroath, it is by no means to be taken as a model for our imitation. Even in the same locality, we much doubt whether this mode of treatment would always succeed; but in London, for instance, and in large manufacturing towns, depletion, in every form of erysipelas, must be employed with caution, especially among those whose constitutions are deteriorated.

ART. X.

A Case of Mollities Ossium, with the Appearances on Dissection. By JOHN HOWSHIP, Esq.

This case, whose “lengthened course extended almost to the space of six years,” was attended with an infinite number of curious and anomalous symptoms, the like of which we shall seldom meet again. We wish we could believe with the ingenious narrator, that it developed “certain principles by which the treatment of the disease should be regulated, and by which the previous disposition may, on future occasions, be treated with advantage and success.” We shall find it rather a difficult matter to compress within our usual limits the history of this lady’s afflicting and fatal malady, but we shall endeavour to do so, if possible.

Case. Miss H. aged 35 years, while visiting Paris in 1816, had got cold, but returned to England in tolerable health. Soon after this she was observed to stoop in her gait, and walk in a rolling manner. An eruption broke out on her head, and Mr. Thomas ordered her decoction of oak bark, by a perseverance in which "she seemed to come round," but "still, however, she declined." Her appetite was bad. In 1818, being much worse, Dr. L. was consulted—considered the complaint as one of disordered liver, and ordered mercury, under the influence of which the patient got worse. A temporary residence in Staffordshire, without any medicine, improved her health much, but she still walked ill, and was obliged to use a staff. She had pain in her right hip, which was much increased by a cough. In walking, she was afraid of the least pebble in the street touching the right foot. In the autumn of this year she went to Margate quite a cripple—used the warm sea-bath twice a week—and returned surprisingly better. In London, she soon fell off again, and got into a state of bad health. While riding in a carriage one day in 1821, the pain in the hip came on in such a violent manner that she was obliged to be carried to her bed-chamber, where she remained till her death. The late Mr. W. (Wilson we suppose) was now consulted, and thought that a curvature was taking place in the spine, for which a seton was inserted, and kept open five months. The pain in the right hip still continued to be most severe—"as if being torn all to pieces." She got weaker, and the seton was at length removed. In August, 1821, she consulted another surgeon, who recommended the horizontal position without change. One night, while being shifted, she exclaimed that her leg was broken, and remained in great pain all night. Mr. W. was summoned, and, on examination, believed that fracture had actually taken place. "The limb laid in a state of quietude and repose, had, after this accident, remained three weeks at liberty, when she awoke early one morning, crying out in dreadful agony, which, if it continued, she said, must drive her distracted." The middle part of the right thigh was now observed to be raised up "like an elbow," the muscles surrounding the limb being affected with cramps and spasms, and "the whole frightfully painful."—Next day Mr. W. laid the thigh straight and secured it with splints. About a month after this the *left* thigh became very painful; one night the femur gave way, like the other, and Mr. W. found one end of the bone riding over the other, the next day. This limb was now also set in splints. It was in the December of 1821, that Mr. Howship first saw the patient, and finding her both weak and exceedingly irritable, he ordered bark and saline aperients. Her digestion improved a little, but pains came in the left arm, of a very distressing kind. Her nervous excitability was such that the very action of swallowing induced violent pain in the diseased members—and so did the slightest touch of a cambric handkerchief on the face—nay, even the mental emotion incident to speaking of her complaints, would produce paroxysms of pain.

On the 16th December, Mr. H. examined both thighs, when the following extraordinary phenomenon was observed.

“ The skin was moist and clammy, but extreme apprehension of suffering on their exposure, induced her to intreat that they might not be touched ; so that the degree of firmness the bones might possess could not be ascertained. Upon passing my finger along the surface of the integuments of the thigh, large drops of perspiration were immediately seen to start out along the lines, and there only ; an experiment I several times repeated, and always with the same result. Neither was the fluid excreted less singular, possessing, as it did, a strong, very unpleasant, and most unusual odour.” 146.

Another curious circumstance was, that touching one limb excited uneasiness in the other, and *vice versa*, while no distress was felt in the limb that was handled. And now she was annoyed with a sensation in each femur, “ as if a string was tied tight round the middle of the bone,” a pain which was afterwards accounted for in a very satisfactory manner. Various tonics were prescribed, which sometimes appeared to do good, but were often interrupted by some inflammatory affection of the chest. We cannot follow Mr. Howship very closely in his detail of symptoms in this case. We find, in the month of May 1822, that, on examination, the bone of the left thigh was completely flexible—in short, that there was *mollities ossium*. On the sixth of the next month death put a period to this lady’s sufferings.

Dissection. The left thigh was opened first. The muscles were not much wasted, and the fat was abundant.

“ Laying aside the rectus femoris, so as to expose the cruræus, the parts immediately beneath that muscle felt like an enlargement of what seemed to lie in the line of the femur. The tough yet thin membrane of the periosteum was apparently filled with some soft or fluid matter. The periosteum being longitudinally divided, the contents proved to be a red pulpy or fleshy matter, in some parts much resembling liver ; in one place much softer ; in another of a grumous consistence like blood. The whole of the softened femur, removed from its place, admitted of a perfect longitudinal division by the knife through the cylindrical portion, without its meeting with the least trace of ossific matter ; but towards each extremity it occasionally encountered a few scattered spiculæ of bone, or a thin external lamina, like a small fragment of paper, or egg-shell.” 153.

Although the medullary secretion was every where deranged the matter deposited was by no means uniform in appearance. One mass resembled pure coagulated blood ; another, gorged liver, and a third had the appearance of compact fleshy substance. The periosteum was not materially thickened ; but

Mr. H. found that precisely in the point to which, during life, the peculiar sense of stricture had been referred, a stricture actually existed. The periosteum at this part had precisely the appearance that would have been produced by a ligature tied tight round it. The right femur presented the same phenomenon, and the other morbid structure described. The bones of the pelvis were so nearly destroyed as to admit of being cut through at pleasure. The viscera presented no morbid appearance.

Such is the history, and such the *post mortem* inspection of this case. Excepting the great and sudden amelioration experienced, in an early period of the complaint, by a temporary residence and some warm-baths on the coast, we cannot see any thing that materially tended to arrest the progress of the malady. True it is that, whether the constitutional predisposition or rather indisposition be likely to lead to morbid softening or morbid hardening of bone or other structure in the body, we shall often find a "trip to Margate," and the salt-water baths there almost realize the fable of Medea's Cauldron; and, therefore, we are strong advocates for this measure whenever hygiene is likely to be more beneficial than therapeutics. Farther than this we do not see in what respect the present case has enlarged our knowledge of either the nature or the treatment of mollities ossium.

In our next, we shall continue the review of several other articles in this volume, some of which are of very considerable interest and importance.

VII.

Elements of the Theory and Practice of Physic, designed for the Use of Students. By GEORGE GREGORY, M.D. &c. &c. Second Edition, with Additions and Amendments. 8vo. pp. 663. London. Burgess & Hill, &c. 1825.

THESE Elements have reached a second edition, and this may be deemed a proof of their merits. The first part, or that which embraces the consideration of acute diseases, has already been noticed, and it is the second, or the discussion of chronic affections, that now engages our attention.

It was not the object of the author, like Dr. Good, to write a complete system of theoretic and practical medicine; nor,

like Dr. Dawson, only to express general observations on particular diseases; but to produce an elementary work for the use of students, and in this we think he has been very successful. Dr. Gregory is master of a pretty style, and this is no mean matter in interesting readers of every description. We cannot, indeed, bestow a higher epithet than pretty, since that style can have no great pretensions either to correctness or elegance, which has “referable” for referrible, “sanguine” for sanguineous, “two first” for the first two, “spiculæ” for spicula, and “a sort of death beginning,” *cum multis aliis*.^{*} Yet still the style is pretty, just as a body is called round although it presents numerous inequalities.

The second part, on chronic diseases, occupies three hundred and thirty pages of closely printed matter, and, after three pages of preliminary remarks, it comprises five classes, an appendix, and formulæ medicamentorum. We will state the distinctive appellation of every class; each of which is divided into a certain number of chapters.—Class I. Chronic diseases of the encephalon.—Class II. Chronic diseases of the thorax.—Class III. Chronic diseases of the chylopoietic viscera.—Class IV. Chronic diseases of the urinary and uterine systems.—Class V. Chronic constitutional diseases.

We shall now offer to the reader a specimen of this elementary work, not that it is one of the best, but because it may be productive of utility in a practical point of some importance.

“Hooping cough is not described by any of the Greek, Roman, or Arabian authors. It is impossible to suppose that a disease so strongly marked as this, could have escaped the attention of the ancient physicians, had it then existed. We must presume, therefore, that it was not known in Europe before the thirteenth, or perhaps even the four-

^{*} Among many others “*lesser*” for less; and, as this is a very common error it may be useful to expose it. He who writes “*lesser*” for less imagines that it is the comparative of the adjective *less*, whereas it is the comparative of the adjective *little*:—thus *little, less, least*; and not *less, lesser, least*.—“*Lesser*” says Johnson, “is a barbarous corruption of *less*, formed by the vulgar from the habit of terminating comparisons in *er*.”—Even Addison falls into this error,

“Attend to what a *lesser* muse indites.”

Worser is not more incorrect than *lesser*; but sounds more barbarously because not so frequently employed.

“Changed to a *worser* shape thou cans’t not be.”

SHAKESPEARE, 1 *Hen.* VI.

For farther information see the grammar of Bishop Lowth.—*Rev.*

teenth century. It was first accurately described by Dr. Willis* in 1664. The most complete treatise on the disease which has since appeared is that of Dr. Watt of Glasgow,† in which the student will find a copious account of the opinions of the best authors.

“ The phenomena which whooping cough presents, as well in its origin as in its subsequent progress, may be thus briefly described. It begins with the common symptoms of catarrh, from which indeed it cannot be distinguished by any known criterion for the first week. It has been observed, that the usual catarrhal symptoms are here accompanied with a more than ordinary disposition to sleep, and those which denote general fever are seldom very strongly marked. About the end of the second, or beginning of the third week, the symptoms undergo a remarkable change: the fever declines, and appetite returns; but the cough continues, and occurs in paroxysms of extraordinary violence. The child struggles for breath, and appears in danger of suffocation, until relieved by the long and full inspiration known under the name of the *back draught*, or hoop. The fit of coughing continues for several minutes, and is commonly terminated by expectoration of mucus, sometimes by vomiting, and occasionally by bleeding at the nose, or an epileptic paroxysm. In very bad cases, even this relief is denied to the little patient, whose efforts end only with his complete exhaustion. It is distressing to witness the attempts made to expectorate. The child appears conscious of the benefit which is thus afforded to him, and he continues coughing until expectoration is effected.

“ The fits vary much in frequency. In mild cases they do not occur more than three or four times a day. In severe ones, they harass the patient every half hour. It is very rare to find them recurring at regular intervals. They are often brought on by exertions of body, or emotions of mind. It is common, therefore, to find the child averse from moving or speaking. He is often aware of the approach of the fit, and lays hold of any thing near him for support. He finds relief by stooping forward, and by support given to the head and back.

“ When once the disease has assumed its regular form, the appetite is good, and this is strikingly displayed in the craving for food, which comes on when the fit terminates by vomiting. The tongue is always *clean and moist*. There is no difficulty of breathing in the intervals of the fit. Permanent dyspnoea betokens something more than mere whooping cough,—probably an inflammatory condition of the bronchial membrane. The bowels are seldom affected. It is very common to find children with whooping cough complaining of a *tensive* pain of the forehead, and in severe cases this is obviously an *urgent* symptom, and one which demands attention in reference to practice.

“ The further progress and duration of whooping cough are subject to great variety. In its mildest form it generally lasts two or three months; and when severe, is often protracted to six or seven. Even after it has

“ * Pathologia Cerebri et Nervosi Generis, cap. 12.”

“ † Treatise on the Nature, History, and Treatment of Whooping Cough, 1813.”

wholly ceased, or nearly so, an accidental exposure to cold has occasioned its return. Under the most favourable circumstances the decline of the disease is very gradual, and almost imperceptible. It happens, however, but too frequently, that the latter stages of the disease are attended with a formidable train of evils. In some cases a convulsion fit occurs in one of the paroxysms, and carries off the patient when the practitioner is least prepared for it. In other cases, from exposure to cold, pneumonic symptoms supervene, and the child either dies with his lungs gorged with blood, or the foundation is laid for a species of infantile phthisis.* In a third set of cases, hooping cough brings on genuine hydrocephalus, and the child dies in a state of coma. This might oftener be anticipated, when we reflect with what force the blood is driven upon the brain, and how much its return is retarded, during a severe fit of coughing. But of all the modes by which hooping cough proves fatal, the most common is that by *marasmus and infantile fever*. The child, after a continuance of the disease for a certain time, from causes not well understood, loses his appetite, emaciates rapidly, becomes hectic, and dies, *apparently* from pure exhaustion.†

“ The danger is not proportioned to the age of the patient. A child of two or three *months* old will struggle through the complaint as well as another of two or three years. When it attacks weakly or scrofulous children, or those labouring under some other disease, it is apt to prove severe, tedious, and therefore dangerous. When hooping cough begins late in the spring, it is commonly milder than when its approach is towards the beginning of winter. It is always most destructive in cold climates, and in cold and damp seasons.

“ The appearances on dissection correspond with the views which have been given of the modes by which this disease proves fatal. Dr. Watt has described several cases in which there were found the clearest proofs of acute bronchial inflammation, conjoined with more or less *congestion* in the substance of the lungs. In some which have been recorded, serous effusion within the ventricles of the brain has been the predominant morbid appearance; while to myself and to many others it has occurred to witness numerous instances, in which, on examination, nothing preternatural has been observed in either of the three great cavities of the body.

“ Hooping cough, though sometimes met with in adults, is for the most part the disease of early life. It is often epidemic. Few children escape it; but it rarely, if ever, is known to occur more than once in the course of life. From these and other facts which might be adduced,

“ * The deaths by hooping cough recorded in the London bills of mortality are always very numerous, averaging not less than five hundred annually. In 1822, they amounted to seven hundred and fifty-seven, exceeding the deaths by small-pox.”

“ † The pathology of this, and of the other varieties of *infantile hectic*, is very little known. An attempt will be made to investigate the subject in a subsequent chapter.”

a reasonable presumption exists, that it has its origin in a *specific contagion*, which, like those of the influenza and measles, has a direct determination to the membrane of the bronchia, though it is not, like them, essentially linked to fever. The contagion of hooping cough appears to be communicated with great facility. When once it gets entrance into a family, it generally attacks every child.

“ Different opinions have been entertained regarding the precise nature of hooping cough. It was originally considered as a spasmodic disease, allied in its more obvious features to asthma and chorea, but acknowledging also many of the laws of convulsive diseases generally. This simple and very satisfactory explanation of the pathology of hooping cough has latterly been called in question; and it has been confidently maintained that it is an affection of an inflammatory kind, closely allied to the ordinary varieties of bronchitis. In favour of this opinion it has been argued; 1. that common winter cough frequently shows a strong disposition to spasmodic exacerbation; 2. that all the more important *sequelæ* of hooping cough are of a decidedly inflammatory character; and, 3. that inflammatory affections of another mucous membrane (catarrh, and cynanche maligna) are induced by the operation of a specific contagion. To these arguments it may be replied, that they point out a strong *tendency* in this disease to inflammation, which the practitioner will do well to keep constantly in view; but an impartial observer will not fail to appreciate those more numerous considerations which associate it with the class of spasmodic diseases.” 441.

Now we are by no means converts to the opinions here promulgated; and, with due caution and reserve, are more inclined to coincide in the sentiments of Dr. Dawson, who, in a recent practical work evidently resulting from considerable experience, has treated this subject very elaborately. It is not our intention, and it would be against our principles, to institute any comparison between Dr. Dawson and Dr. Gregory, or to praise either of these physicians at the expense of the other:—no; we have a higher object in view, which is to call the attention of practitioners in general to the right consideration, and proper treatment of an always distressing, and too frequently dangerous, disease. The discussion we are about to enter into will, we fervently hope, stimulate observing and experienced men to communicate their opinions, unquestionably valuable, to the pages of some of the respectable periodical journals, with the object of ascertaining whether Dr. Dawson or Dr. Gregory be the safest guide, or the most faithful observer. To us, abstractedly speaking, it imports very little;—to the community almost every thing. He that has had a beloved child, the only remains, perhaps, of a much loved object, suffering under severe hooping-cough; who has seen that child in all *its strength*, and all its weakness; who has beheld it coughing

with agony, gasping for breath, clinging to chairs and tables for support; and who has witnessed his bloodshot eyes, and the blood gushing from his nostrils, or streaming from his mouth, will pardon such a discussion, if even he take no interest in it.—That we may do full justice to Dr. Dawson, and give additional publicity to that physician's doctrines, as well as place them on record for immediate perusal, and subsequent reference, we will subjoin them in a somewhat abridged form, at the bottom of this page, as a note.*—Now it is incontrovertible that in assuming a peculiar kind of inflammation of the glottis to constitute the primary stage of pertussis, Dr. Dawson could have no ends to answer except those of truth, since he candidly acknowledges that twenty years ago Sir Astley Cooper called his attention to that simple fact. Let it not be forgotten that the opinion of this gentleman on such a point is exceedingly influential. If Sir Astley had been a prac-

* Hooping cough consists, not in spasm, but in an inflammation of the glottis, which either remains there, or involves the larynx, trachea, and lungs. The specific nature of this inflammation, like other specific ones, satisfactorily explains why pertussis is often contagious, and why, in its effects as well as in its duration, it widely differs from common inflammatory affections."—"The inflammation may be subacute or acute, passive or chronic; and according to its kind and degree, so will the cough, depending on such inflammation, be mild or severe, short or long continued, cure itself spontaneously, or terminate unhappily. If the inflammation be subacute, it will proceed favourably to health; if passive or chronic, it may last a considerable time without danger; and if highly acute, the inflammation may, and often does, reach the lungs, and destroy life like pneumonitis, for such then is the disease, with pertussis superadded. The duration and event of hooping cough correspond with what is here advanced:—Sometimes it extinguishes life in a few days; and occasionally it obtains for several weeks; and not unfrequently it is protracted to the seventh or eighth month."—"The fever which attends hooping cough varies in degree, being sometimes slight, and disappearing in a week; and, occasionally, severe and long continued, with oppression, sickness, and want of appetite. When the cough is formed, the paroxysm consists of a number of short expirations in rapid succession, so as to induce a sense of suffocation, which is relieved, for an instant, by a violent, full, and *hooping* inspiration;—then the expirations recommence; and thus, in alternate succession, does the paroxysm, always most frequent and distressing during the night, continue until it terminate by a discharge of phlegm, the contents of the stomach, or hæmorrhages from the nose or lungs."—"If the inflammation be confined to the glottis, the health does not commonly suffer: the appearance is seldom altered: there is little fever, and in a few weeks the inflammation slowly subsides, the characteristic *hoop* departs, and recovery follows as if from catarrh. In other instances the inflammation, still confined to the glottis, and slightly implicating the larynx, becomes decidedly chronic; and the paroxysms, with discharges of phlegm, food, and blood, attended by a swollen countenance, continue for many months. Even here no great danger is to be apprehended, because the inflammation evinces no dispo-

tising physician, if he had been, like Dr. Gregory or Dr. Dawson, a systematic writer on physic, he might have entertained a particular theory on hooping cough, or any other disease, and have been most anxious to demonstrate its correctness; but, being an eminent surgeon only, it is evident that he could take no interest in an affection foreign to his pursuits, and could alone have formed, and promulgated the opinion just mentioned from numerous dissections performed by his own hands. But Sir Astley Cooper simply stated the fact itself; and the assertion that it is a peculiar kind of inflammation, and divisible into subacute or acute, passive or chronic, are the results of Dr. Dawson's experience and reflection for a period of twenty years. That a peculiar inflammation does frequently invade the air-passages is a self evident proposition; and Dr. Dawson forcibly urges that while the inflammation of croup produces a dangerous exudation of coagulable lymph, that of chronic tracheitis only causes a secretion of purulent fluid. Every sensible

tion to spread;—there is no serious affection of the general health—no fever—no convulsions—no anasarca swellings—the child manfully grapples with the disease, and will not be overpowered. But more unhappy cases meet our view, and most generally in extreme youth and debilitated frames. Here every symptom is unfavourable. The child is exceedingly feverish, even in the intermissions. The paroxysms are frequent, long, and violent; there is considerable exhaustion of the system; the sufferer pants for breath; even after the paroxysm it does not breathe freely, and its face is flushed or pale alternately: there is no appetite—no activity—but thirst, and unwillingness for motion; and all this may occur within the first twenty days. Where the inflammation of the glottis is most acute: disdaining its own narrow limits, it seeks to extend them by rapidly travelling over the larynx, trachea, and lungs. Now the patient, in addition to pertussis, has, pneumonitis to contend against, of which it presents every symptom. If the disease proceed unchecked, the breathing becomes still more difficult, the paroxysms abate, convulsions sometimes occur, and death ensues from copious effusion into the lungs.”—*Dawson's Nosological Practice of Physic*, p. 125, *et sequent.* London, 8vo. 1824.

The above Note is but, at best, an abridged statement of the opinions of Dr. Dawson; and in this respect we have given Dr. Gregory a decided advantage over him, since his narrative is altogether unbroken. Exceedingly anxious to reflect light on this important subject we, this evening, asked the candid opinion of a very eminent general practitioner, with whom we were in attendance, and who probably, during the last eighteen years, has seen as much of hooping cough as any man now living. He answered us thus,—“I think it is always inflammatory, but certainly blood-letting does not control the disease as it commonly does other inflammations; and I suspect this is owing to some peculiarity in the inflammation itself.”—It is worthy of notice that this observation, and the doctrines of Dr. Dawson receive great confirmation of their truth from an opinion, recently promulgated by Dr. Armstrong, that liberal venesection is injurious in acute bronchitis. Still, however, when inflammation begins to spread from the glottis blood-letting is of marked benefit in pertussis.—*Rev.*

and observing writer has admitted that hooping cough is very often of an inflammatory nature; but the point at issue is whether it is always inflammatory; and whether this inflammation, in the first instance, invariably assails the glottis; since these are the leading principles, which Dr. Dawson has so strenuously laboured to circulate, and to establish. Innumerable dissections have revealed the consequences of inflammatory action in the lungs, and their appendages, of the victims to pertussis; and, under such complicated mischief, it is easy to conceive, that the state of the glottis might have eluded the notice of common observers, although it could not, and did not, escape the scrutinizing eyes of the first surgeon of this, or perhaps of any other age. Even Dr. Gregory acknowledges that hooping cough begins exactly like a catarrh; and surely if this be not inflammation, it is, at least, very much in the spirit of it. Again, he says, according to the London bills of mortality, five hundred die annually of this disease; and that, in 1822, they amounted to seven hundred and fifty-seven! Need we go farther after such appalling evidence?—What else but a singularly insidious, and little suspected inflammation, of a dangerous nature, because implicating an important outlet, could occasion so unprecedented, so frightful a loss of human life?—No common causes could be adequate to the production of such wide-spreading mortality in a single metropolis!—When Dr. Gregory gravely observes that numerous considerations associate hooping cough with the class of spasmodic diseases, we fear he departs from his general accuracy, and good judgment. That spasm does attend this affection few will deny; yet who does not see that such spasm is the mere consequence of irritation, just as spasm arises from an irritable urethra, or from the introduction of a bougie.—Here our task ends; with every possible caution and deserved courtesy; with every abstinence, either from praise or censure, we have attempted to place the opinions of Dr. Gregory and Dr. Dawson on hooping cough, as it were, in juxta-position; and, without having committed ourselves farther than truth demanded, we now cheerfully leave this important subject to the consideration of the profession at large, which will, doubtless sooner or later, decide most justly.

One more interesting extract, and then we will hasten to a conclusion.

“ 1. In the most usual form of apoplectic seizure, the patient falls down *suddenly*, deprived of sense and motion, and lies like a person in a deep sleep. He neither hears, nor sees, nor feels. Unconscious of every thing around him, he is alike insensible to the exertions of his

medical attendants, and the anxieties of his friends. The suddenness of the attack is that feature of the disorder which most immediately impresses itself upon the notice of observers; and being so very general, the disease has from this circumstance in all ages received its name.

“ 2. The second form of apoplectic seizure commences by a sudden attack of violent pain of the head, accompanied with paleness of the face, sickness at stomach, vomiting, and transient loss of recollection. The patient, in some instances, falls down in a state resembling syncope, but recovers in a few minutes, and is able to walk. After a few hours, however, the head-ache continuing, he becomes oppressed, and *gradually* sinks into perfect coma.

“ 3. The third form of apoplectic seizure begins with a sudden attack of *palsy* of one side, with loss of speech, which, after the lapse of some hours, passes gradually into apoplexy.

“ In whichever way the apoplectic fit commences, there are certain appearances presented during its continuance, which merit attention. The pulse, at first, is commonly small and irregular; but as the system recovers from the shock, the pulse becomes full and strong, and is generally slower than natural. Respiration is much embarrassed, being always slow, and occasionally irregular. In all the severer degrees of the disease, this laborious breathing is accompanied by stertor; and a frequent appearance is that of foam, or frothy saliva, excreted from the mouth, and blown away from the lips with considerable force. This latter symptom has always been looked upon as indicative of the greatest danger.

“ The skin is commonly warm, and bathed in a copious perspiration. In the worst cases of the disease, a cold clammy sweat has been observed. The face is generally pale; the cornea dull and glassy; and the pupils permanently dilated. The teeth are closely clenched; and the power of swallowing, though seldom wholly lost, is for the most part so much impeded, as to oppose the most serious obstacles to the administration of remedies. The bowels are torpid, as is usual in all cases of cerebral oppression, and they resist the action even of powerful cathartics. If blood is drawn from the arm, the coagulum is commonly firm; and Sir Gilbert Blane has noticed, that it is in most instances covered with the inflammatory crust.

“ The duration of the apoplectic fit varies from two or three hours to as many days. Thirty hours may be called the average duration of those cases which have fallen under my own observation. Instances, indeed, are on record of *sudden death* from apoplexy; but in many of these there is reason to suspect, that the immediate cause of death was rather to be found in some affection of the heart, or large vessels in its neighbourhood, than in injury to the brain. Genuine apoplexy, commencing in the manner I have described, and attended with all the symptoms just enumerated, almost always ends fatally. When a recovery, either perfect, temporary, or partial, takes place, it will usually be found that some of the more decided evidences of perfect coma have *been wanting*: the patient has given evidence of feeling when his limbs

is grasped, or the lancet used ; the pupil has obeyed in a certain degree the stimulus of light ; the mouth has not been firmly closed, or the power of swallowing wholly lost ; there has been no stertor, or foaming at the mouth ; nor were the premonitory symptoms strongly marked. Under such circumstances our prognosis may be somewhat more favourable ; though it should even then be guarded by the reflection, that if recovery does take place, we must seldom expect it to be perfect. An incurable palsy may remain ; or the memory may wholly or partially fail ; or an imbecility of mind, approaching to mania, may be left. But besides this, in all cases where a decided apoplectic fit has been experienced, a relapse is to be dreaded, and recovery from a second attack is seldom if ever witnessed.

“ The opportunities which the fatality of this disease has offered to the physician, for prosecuting his researches into its nature and seat, have not been lost ; and we have accordingly a most extended record of the appearances found on dissection in apoplectic cases. Their variety is very great, and must be fully appreciated before any attempt can be made to explain the pathology of the disease. Extravasation of blood in some part of the cephalon, is by far the most common appearance, and is that which is generally to be anticipated. Such extravasation may take place between the membranes of the brain, on its surface, about its basis, within its ventricles, or in the midst of its substance. The quantity of fluid effused is as various as its situation ; and the violence of the symptoms is found to bear a reference partly to the *quantity*, and partly to the particular *seat* of extravasation. An extensive effusion of blood is equally to be dreaded wherever it takes place ; but a slight effusion is generally stated, and probably with justice, to be more dangerous in certain situations than in others. It is believed, for instance, to be much more alarming, and attended with more formidable symptoms, when occurring on the medulla oblongata, than in the anterior lobes of the brain.

“ The next most usual appearance in those who die of apoplexy, is the effusion of serum, either upon the surface of the brain, or within the ventricles. In some cases we meet with turgescence of the smaller vessels, or of the great sinuses of the brain, but without effusion either of blood or serum.

“ These are the common appearances presented on examination of those who die of apoplexy ; and, considering their frequency, it is undoubtedly a surprising circumstance, that every now and then, after the most unequivocal symptoms, the head presents, on dissection, nothing morbid or uncommon.” 337.

Upon the whole we are much pleased with this work, as well with the first as the second part ; and have great pleasure in warmly recommending it to students, who, if they neglect to purchase it will not injure any one so much as themselves. Most honestly can we declare that we deeply regret we had no such publication to lighten our youthful labours, and to direct them

into the right channel. In our opinion the author is too fond of grouping diseases, and remarkably negligent, whether designedly or not he best can tell, in noticing respectable contemporary writers, from whose pages he might have enriched his own with varied and valuable matter. Such culpable negligence, if indeed that be its proper designation, would have been scarcely excusable in a first edition ; but in a second, in which, according to his own statement, there have been additions and amendments, it is strange, and passing strange. Still, however, these are but points of minor importance ; and do not, in any material degree, derogate from the general merits of a truly respectable, and well executed elementary work. It is really refreshing to read the pages of Dr. Gregory ; for while we read them we feel that we hold converse with a gentleman, and a man of honour ;—a man who loves truth, and would scorn to gild a lie, or varnish a deception. He writes with caution, modesty, and good sense ; states every thing fairly, comments on it discreetly, and draws conclusions which are commonly just. He is no ardent enthusiast, nor empty theorist ;—he does not make minute divisions, nor endless subdivisions, which have no real existence ;—he has no extravagant attachment to particular medicines, nor to precise modes of treatment ;—he does not pretend to cure, or to have cured, diseases which have been considered incurable by the first physicians :—He describes that which he has seen, or believes to be true from indisputable testimony ; and he wisely leaves to others the suspicious practice of explaining, and expatiating on, diseases not as they really are, but as they may seem to a warm and prolific imagination :—his opinions, his descriptions, his observations, and his deductions may be aptly compared with the useful labours of a faithful biographer, and not to the imposing efforts of a novel, or romance writer. Let it not be supposed that we assent to every opinion of Dr. Gregory, bow to his every theory, or submit to his every conclusion :—very far from it ; but we well know that no man can produce a perfect work ; since there are times when talent fails, when vigilance slumbers, and when industry flags. Such is the common lot of intellect, however acute, however cultivated ; and, therefore, we judge, as we ought to judge, with a liberal mind, and unhesitatingly pronounce it an elementary work comparatively excellent, although it does, beyond all dispute, present occasional, and obvious deficiencies, and imperfections. To conceive is easy, to arrange is equally so ;—to plan, in the mind's eye, a complete and faultless whole is apparently a simple task :—but where is

the author who has not found it very different when he came to the trial:—when he felt the pressure of unexpected difficulties; when he experienced that time was sometimes wanting; that anxiety often precluded thought; that interruption commonly impeded execution; that to seek for books was not always to find them; that ill health would too frequently mar the best of efforts; and that a fit of mental indifference, or a paroxysm of agonizing pain would most certainly spoil a page, or render abortive an essay, which, under happier circumstances, might have created nearly universal satisfaction. In this spirit, not, we humbly hope, an ungenerous one, have we reviewed the labours of Dr. Gregory.

VIII.

Des Inflammations Speciales du Tissu Muqueux, et en Particulier de la Diphthérie, ou Inflammation pelliculaire, connue sous le Nom de CROUP, d'Angine Maligne, d'Angine Gangreneuse, &c. Par P. BRETONNEAU, Medecin en Chef de l'Hôpital de Tours. 8vo. pp. 540, avec Planches, Paris, Juin, 1826.

THE author of this work is a distinguished physician, at Tours, a large city in France, and has excited considerable interest among our Gallic brethren, by his minute and accurate researches into the phenomena of affections of the mucous membrane lining the air-tubes and digestive canal. In the 9th Number of this Series, page 199, *et seq.* we gave a short sketch of Dr. Bretonneau's Observations on a Pustular Eruption in the Mucous Membrane of the Intestines, denominated by him DOTHINENTERITIS, and it is now our duty to lay before our readers some account of the large volume which he has just published on Scorbutic Gangrene of the Gums, Angina Maligna, and Croup—diseases which he affirms to be not merely similar but identical.

It will be remembered that in the fourth volume of the present Series, in the Numbers for January and April, 1826, pp. 261, and 590, we introduced some observations of Mr. Mackenzie of Glasgow, and Mr. Pretty of London, shewing that the inflammation and exudation of croup frequently commenced on the tonsils and fauces, thence spreading down into the œsophagus, larynx, and trachea. Mr. Pretty has related

cases of fatal croup, "after, or rather in conjunction with, simple scarlet fever and malignant sore throat," which, "seemed to be owing to an extension of inflammation from the fauces to the larynx and trachea."

In the Number for October, 1825, of the Medical and Physical Journal, Dr. Gregory of London, details three cases of fatal croup, where the disease evidently began as cynanche, the inflammation spreading down into the larynx and trachea, and destroying life. Two of the cases were examined after death. In one, the croupal exudation was found lining the larynx and trachea as far as the first division of the Bronchia. In the other case, the child was getting better under the mercurial and antiphlogistic plan, but relapsed and died, apparently from exhaustion. In this instance the trachea was blocked up with a purulent secretion, and the mucous membrane was inflamed, but no adventitious membrane had been formed. The disease was therefore tracheitis rather than real croup. Dr. Gregory has brought these cases forward with the view of shewing the contagious character of croup; and as these three instances occurred in the same family, there is strong reason to believe that the disease was communicated from one to the other. But these cases prove another point of great consequence—the extension of inflammation from the fauces to the air-passages—or in other words, the *occasional* identity, at least, of cynanche maligna and croup. The bearing of these notices will be immediately recognized.

A singular confirmation, and indeed anticipation of these observations will be seen in the work of Dr. Bretonneau. In Tours and the neighbouring country, an epidemic has raged, with more or less violence, since the year 1818, desolating whole families by its ravages. The disease was first observed among the soldiers of the Legion of Lavendee, who had lately returned from the Isle of Bourbon. In these it assumed the form of a scorbutic affection of the gums, with small ulcerations spreading over the mucous membrane of the mouth. At first it was thought to be purely *scorbutic*, and vegetables, vegetable acids, and other antiscorbutic remedies were given in abundance, but without the least effect. The topical application of muriatic acid removed the complaint, as if by magic.

In the same year, the ANGINA MALIGNA broke out at Tours—a disease which very few, even of the oldest practitioners, had previously seen in that part of France. A case or two will convey a description of this affection.

Case. A child five years of age, in prime health, was seized with *coryza*, and pain in the ear, accompanied by some discharge from the

auditory canal. Two days afterwards, he complained of sore throat, and some difficulty of swallowing; but supped the same evening with his usual appetite. On the third day the throat was more embarrassed, and on examination, in the forenoon, large grey patches were seen covering the tonsils, surrounded by red and tumid bases. Leeches were applied to the sides of the neck, and an emetic solution was given repeatedly. The cough now became troublesome, the voice hoarse, the breath very fetid, with eschars in the throat of a black colour. The pulse became small and quick, with dyspnœa, livid pallor of the countenance, &c. and the child died in the night.

Dissection. The velum pendulum palati was of a dark grey colour—and decomposition had already begun to take place in the tonsils. The eschars extended from the posterior nares to the commencement of the œsophagus, penetrating down into the glottis, where they were of a pale tint. The mucous membrane of the trachea (which, however, was only hastily examined) did not appear inflamed. There was some accumulation of mucus about the bifurcation of the bronchia.

The object of the two following cases will be obvious enough.

Case 2. A child, eight years of age, was brought to the Orphan Hospital, with pale and leaden complexion, depressed expression of countenance, loss of voice, quick weak pulse, fetid breath. The child had complained of sore throat for some days, together with a little difficulty of breathing. On inspection, all the soft parts about the back of the mouth were of a grey colour, and apparently sphacelating—one of the tonsils was almost detached, being only suspended by some cellular membrane. Although no hope of recovery was entertained, a sponge impregnated with hydrochloric acid, was pushed into the fauces. Next day the symptoms were surprisingly mitigated, and membraniform sloughs were detached. The same topical application was reiterated, and the child rapidly recovered. From the appearances which the fauces presented before the acid application, it was presumed that disorganization had gone on to a considerable depth in the soft parts; yet to the astonishment of the medical attendants, when the sloughs were thrown off, the mucous membrane of the parts underneath was found to be in a state of integrity.

It is hardly necessary to state that the method of treatment above described was now generally adopted, and with the best success. The following case will shew the danger of discontinuing the topical application too soon.

Case 3. A child, seven years of age, was brought into the general Hospital of Tours, (ward No. 4,) with sore throat, slight fever, the

right tonsil a little swelled, with a white spot on it, which disappeared after the second application of the muriatic acid. Four days passed, without any thing particular occurring, the child denying that its throat was sore, lest the acid application should be renewed. But at length the difficulty of deglutition could not be concealed; and, on examination, it was found that the whole of the fauces were of a grey and marbled colour—the cough being frequent, and the expectoration copious. The topical application was renewed. Next day the voice was much affected; and the day after, it was entirely extinct. The cough was stridulous, with dyspnœa, sibilant inspiration, fetid breath, pale livid countenance. In the night the dyspnœa increased rapidly, and death took place on the third day from the relapse.

Dissection. The parietes of the pharynx were covered with eschars, and in the trachea was found a complete membranaceous tube, white, elastic, consistent, and feebly adhering to, or rather spread over the subjacent mucous membrane, from the rima glottidis to the minutest divisions of the bronchia. When this false membrane was removed, which required no force, the tissues underneath, both in the fauces and air-tubes, were perfectly free from any gangrenous appearance, exhibiting only some red patches, without any approach to erosion or thickening.

Here then the question presented itself, was this a case of malignant sore throat or croup? Was it a combination of the two? or was it an extension of the faucial inflammation and exudation into the larynx and trachea? Innumerable cases afterwards occurred, during the succeeding years, to prove the truth of this last conjecture.

Such were the first steps by which our author was led to an investigation that promises to be of some importance, both in a pathological and therapeutical point of view.

“Twenty-two dissections, says he, (1st Memoir) were made in succession, for the sole purpose of ascertaining if the concretions, which, in the pharynx simulated eschars, were really an inorganic substance of the same nature as the croupal exudations—and especially to ascertain whether the subjacent tissues preserved, at the same time, their integrity. Finally, it became a still more important object to determine whether, in cases proving suddenly fatal, where the breath presented no fœtor, where the croupal cough and alteration of the voice had not been preceded by any difficulty of deglutition—in short, where the disease presented the most faithful picture of membranous angina (*de l'angine membraneuse*) whether the development of concretions had always commenced on the tonsils—on a part, in fine, where, by the aid of local treatment, one could arrest the extension of the disease.” 32.

“In comparing,” says M. Bretonneau, “the morbid appearances found on dissection in fifty five subjects, of all ages, who, in the course of two years, fell victims to the epidemic angina, there appeared but one

instance wherein the false membrane was confined to the trachea, without any similar exudation on the tonsils or other part of the pharynx. In no case, even of the most malignant nature, was there any thing like *gangrene* of the parts. Ecchymoses of small extent, and an occasional slight erosion of those surfaces where the disease had longest continued; were the gravest alterations of structure which were ever seen. In about six or seven cases, that is, in one case in nine, the membraniform concretion extended to the ultimate ramifications of the bronchia. In about a third of the whole number it reached the great divisions of the bronchia—in all the rest it terminated at various depths in the trachea—the mechanical obstruction of the respiration appearing constantly to be the immediate cause of death in all cases.” 33.

This exudation very generally pervaded the pituitary membrane of the nares, but rarely reached the external openings of the nostrils. In two young infants a membranous tube lined the œsophagus, down to the cardiac orifice of the stomach.

The above facts are contained in the first memoir of our author, read at the Royal Academy of Medicine in the year 1821. Three other memoirs follow in succession, carrying forward the investigation up to February, 1826. The substance of these we shall endeavour to grasp and compress in as small a space as possible, in the course of this article.

The following are the anatomical characters of the disease under consideration.

“ It is sometimes difficult to detect the organic change, of which the concrete exudation is, in fact, the product. Most frequently it is confined to irregularly-shaped patches of dotted redness, without swelling. If examined with the microscope, the most florid of these patches will be found to be caused by a very fine vascular injection, the red puncta being minute ecchymoses, and the white interstitial points being the prominent orifices of the mucous follicles. A long narrow red streak is often seen extending to the pharynx, or descending into the trachea, either alone or accompanied by others of a similar appearance. A stripe of concrete matter forms on the middle of each of these striæ, and in the substance of these incipient concretions small semi-transparent bullæ are often seen. The edges of the pellicle are gradually confounded with the surrounding mucus which, without being altered in appearance, is changed in its quality, being no longer viscid, but coagulated in the vicinity of the concretion. These bands or stripes presently enlarge, become more dense, more homogeneous, and finally coalescing, form a complete tube, united to the subjacent mucous membrane by little elongations which dip into the orifices of the muciparous follicles. If the concretion is detached, the redness increases in the denuded points—the false membrane is reproduced, and, in proportion as the superimposed laminæ add to its thickness, it becomes more and more adherent to the organic surface beneath.” 42.

After detailing some cases exemplifying the foregoing general description, M. Bretonneau remarks that "this redness of the mucous membrane without thickening of its tissue, so superficial and yet accompanied by a concrete exudation so abundant, appears to him so remarkable as to deserve the name and character of a specific inflammation, *sui generis*." It is, he affirms, as different from common catarrhal phlogosis as malignant pustule is from herpes zoster—as different from scarlatina anginosa as scarlatina itself is from small-pox. Under this impression he begs permission to designate this phlegmasia by the term *DIPHThERITE*, derived from ΔΙΦΘΕΡΑ, pellis, exuvium, vestiscoriacea.

The description, he observes, which he has given of the various aspects which this coriaceous exudation successively assumes, is often useful in a practical point of view. The long and narrow streaks which we see floating in the expectoration, when the mercurial influence is established in the system, indicates that there is not yet formed a membranaceous tube in the trachea, and that the morbid process has but recently extended to that part. Hence there is reason to hope that the morbid process itself will be modified before the tube is completely formed, and has acquired that degree of adhesion to the membrane beneath which bids defiance to all remedial measures.

At the commencement of the epidemic the death of children was generally attributed to croup, in consequence of its suddenness, and of its being preceded by the usual symptoms of that malady;—whereas, in adults, the fetor of the breath, and the livid appearance of the fauces, gave currency to the idea that cynanche maligna was the disease under which they laboured. The difference of development in the aeriferous tubes, at the different periods of life, sufficiently accounts, in M. Bretonneau's opinion, for this apparent anomaly. The fetor of breath and gangrenous aspect of the fauces, he avers, were owing to the putrid state of the concretions, and not to any gangrene of the organized structures. The exudation of blood, a common occurrence in this species of inflammation, completed the error, by giving a livid and variegated tint to the concretions which were already in a state of decomposition.

In respect to the identity of angina maligna and croup, it may be remarked that there is not much reason to wonder why physicians of former times, when dissection was so seldom performed, should have given the name of gangrenous sore throat to a disease which wears so much the appearance of

gangrene. Dr. Bretonneau himself was not free from the same error—and had he not had so many opportunities of examination after death, he would still have believed that his patients died of gangrenous cynanche. But if we consider that out of more than two hundred cases of the disease attended by our author—and upwards of sixty dissections, he has only *twice* found the false membrane confined solely to the air-passages, while, in all the other instances, the disease *invariably* commenced in the pharynx, and presented, in the beginning, the symptoms of angina gangrenosa—if we consider that, in the whole of those who were examined, *post-mortem*, the false membrane which constitutes croup was found in the larynx—and finally, if we consider that the same facts, under the same forms, and attended by the same circumstances, were constantly observed by Dr. Guersent, and also by Dr. Velpeau, we shall be strongly urged to grant that angina maligna and croup are the same disease affecting different portions of the same mucous membrane.

Causes. It is very difficult to account for the first causes of an epidemic of any kind, even of measles, scarlatina, or small-pox. But, in whatever way the present epidemic had originated, there were proofs irrefragable that it was afterwards occasionally propagated by contagion. For these proofs we must refer the sceptical to the work itself. They appear to us quite unquestionable.

Diagnosis. Dr. Bretonneau takes considerable pains to point out the diagnostic symptoms by which the diphtheritic angina may be distinguished from various other phlogoses with which it is often confounded.

1. *Angina Diphtheritica.* Redness and tumefaction of one of the tonsils—seldom of the whole of both—erratic fever, not much developed—then some white spots on the surface of the affected tonsil, produced by the pellicular exudation, and easily detached,—enlargement of the lymphatic glands on the sides of the neck—deglutition not very difficult, afterwards still less so—a redness surrounding the concretion, and spreading, sometimes very rapidly, to the velum palati, uvula, pharynx, and the other tonsil. Most frequently, after this sudden expansion, the progress of the diphtheritic inflammation becomes suspended for a time. The intumescence of the lymphatic glands either subsides or remains stationary—the fever is scarcely perceptible; but, after a truce of some days, or only of some hours, cough begins, and is either dry, or accompanied by some frothy expectoration:—Presently it becomes of

a barking kind, indicating the propagation of the inflammation to the air-passages.

We shall not stop long to compare the above with common cynanche tonsillaris—syphilitic sore throat—scarlatina anginosa—spasmodic croup (to which it bears, for a short time, considerable resemblance)—or tracheitis, the most formidable of all the affections which simulate the diphtheritic inflammation.

2. In scarlatina anginosa, the fever accompanies or precedes the angina—the deep red colour of the velum palati and tonsils, and the swelling of these glands, precede the appearance of white specks which, by their coalescence, form the layer on the velum palati. The deglutition is at once painful and difficult—a buffy incrustation covers more or less of the tonsils. At a more advanced period, the tongue, denuded of the layer with which it was coated, assumes a deep violet tint, whether dry or moist. In the worst cases of scarlatina anginosa, the buffy crust which adheres to the tonsils becomes decomposed, changed in colour, partially detached, and then exhales a fetid odour, simulating a gangrenous affection. But even in this case, the pharyngeal inflammation is not the most dangerous part of the disease. As soon as the cutaneous efflorescence begins to turn pale, the inflammation of the throat rapidly subsides, and generally by the eighth or tenth day there is no trace of it left.

3. *Angina Stridulosa, or False Croup.* This disease is every day confounded with genuine croup, and accounts for the wonderful cures and numerous remedies that are so often puffed off in the periodical journals. This complaint presents itself often under a very formidable aspect, assuming all the features of croup in its highest degree of intensity. The following case, introduced by Dr. Bretonneau, will exemplify the disease and shew the difference between it and diphtheritis.

Case. At the time when angina maligna was making such havoc at Tours, a child, aged four years, which Dr. Bretonneau had seen in perfect health in the morning, was seized in the evening with the same cough, the same dyspnoea, and the same extinction of voice that had so generally preceded death in the fatal cases that were occurring at this period. *There was no swelling, however, of the lymphatic glands at the angle of the jaws, the tonsils and velum palati were free from redness or tumefaction, and no pain was complained of in the region of the larynx.* The disease therefore could not be diphtheritis. They were preparing to apply leeches, and to exhibit an emetic, when the little child fell fast

asleep, and the pulse was not at all accelerated. The inspirations were stridulous, but the respiration was not quicker than natural. The cough, which was short and dry, only momentarily interrupted the child's sleep. Presently the cough became looser, and the application of the leeches was deferred. A gentle moisture appeared on the skin—the cough became more and more catarrhal; and, next morning, the complaint differed in no respect from a common cold. In another day the child was playing about, and required no farther medical aid.

Dr. Bretonneau is of opinion that the angina stridula, or false croup, is not produced or aggravated by any spasmodic affection of the glottis, but is solely caused by a catarrhal inflammation, a simple oedematous tumefaction (*une simple tumefaction oedemateuse*) of the mucous folds in the ventricles of the larynx.

4. *Tracheitis*. This, as was hinted above, is the most formidable imitation of angina diphtheritica, and that which requires the most prompt antiphlogistic measures. The diagnosis will not be difficult to any man of clinical experience. A case will best illustrate the difference between this disease and diphtheritis.

Case. N. D. aged six years, of strong and plethoric constitution, had been exposed to cold and, on the first day of the complaint, exhibited the symptoms of coryza. *2nd day.* The cough was dry, frequent, and short, with *vox rauca*. *The tonsils and pharynx, examined with care, presented no swelling nor spots.* The little patient complained of great pain about the larynx, which was increased by pressure: no swelling of the submaxillary glands—pulse 110. The cough became more and more husky, and soon presented a fearful resemblance to that of croup. *3d day.* Dyspnoea, quick breathing, sibilant inspirations. Twelve powerful leeches were applied to the sides of the larynx, and the bites bled most abundantly. The difficulty of breathing was relieved, but the cough remained dry and croupy as before. An ipecacuan mixture was given every hour till vomiting was produced. The cough now became looser, and assumed the character of that which accompanies tracheal or bronchial catarrh. *4th day.* There was muco-purulent expectoration, and mitigation of the fever. *5th day.* The same state. *6th day.* Convalescent.—p. 275.

Historical Testimonies.

Dr. Bretonneau traces descriptions of the croupal or diphtheritic inflammation from the time of Hippocrates downwards. It is in Areteus, however, that we find unequivocal delineations of this dangerous malady.

“*Ulcera, in tonsillis fiunt, aliqua mitia, aliqua pestifera, necantia. Pestifera autem sunt lata, cava, quodum concreto humore albo, livido,*

aut nigro sordentia. Quod si concreta illa sordes altius descenderit; affectus ille eschara est, atque ita Græce vocatur, Latiné crusta. Crustam vero circumvenient rubor excellens et inflammatio, &c. *At si in pectus per arteriam id malum invadat, illo eodem die strangulat.* Pueri usque ad pubertatem maxime hoc morbo tentantur." This is a pretty accurate description of angina maligna spreading to the trachea and suffocating the patient. The croupal anxiety and suffocation are inimitably painted in the following passage.

"Tussis spirandique difficultas enascitur, et modus verò mortis quàm miserrimus accedit. Pallida his seu livida facies, tristantur cùm tonsillæ comprimuntur. * * * Cumque decumbant, surgunt ut sedeant, decubitus non ferentes. Quod si sedent, quiete carentes iterum decumbere coguntur. Plerumque recti stantes obambulant, nam quiescere nequeunt. Inspiratio magna est—expiratio verò parva. Raucitas adest vocisque defectio. Hæc signa in pejus ruunt cum subito in terram collapsis anima deficit."

Dr. Bretonneau asks, can any one fail to recognize in this animated description, the very disease which forms the subject of his work? We cannot afford space to follow our author in his researches downwards to our own times; but must refer the reader who wishes for historical information on this point to the work itself, from page 57 to page 83.

Of the *occasional* transmission of the disease by means of contagion, our author has no doubt—and this was the creed of all the writers on this disease in the 17th century. The number of instances, however, in which the disease could be traced to contagion bore a very small proportion to those where a general epidemic influence was the ostensible cause of the malady.

Treatment.

Dr. Bretonneau believes that real diphtheritic inflammation or croup is rarely susceptible of a natural cure, in consequence of the constant tendency of the coriaceous inflammation to spread along the mucous membrane, without leaving the parts originally occupied. The rapidity with which the disease expands itself over parts so essential to life, has given rise to a multiplicity of remedies administered in a tumultuous manner, and too often without success. Our author avers that the fatality of croup is not owing to its violence, its destructive activity, nor any fluxionary movement towards the aeriferous tubes, but to the accumulation in those tubes of an inert secretion, the product of a superficial inflammation, which accumulation ultimately destroys the function of respiration, and occasions death. It need hardly be stated that this opinion applies solely to the disease under consideration, and not to a number

of minor or different affections which simulate real diphtheritic croup. It will appear as somewhat staggering proposition of the author, when we find him declare that in this disease, neither bleeding, nor leeching, nor blistering, nor vomiting, nor purging will do any good—and that topical treatment is almost the only thing to be depended on—especially at the commencement of the disease.

“I am forced,” says Dr. Bretonneau, “to declare, contrary to the received opinion, that bleeding in croup has done harm, and accelerated rather than checked the spread of the coriaceous inflammation. I did not abandon this measure till after reiterated proofs of its injurious effects.” The same is said of local bleeding and blistering. The topical treatment alone (with the exception of calomel internally, of which we shall presently speak) was the only thing that appeared to do any good. Various external applications are spoken of by our author, with very little approbation, till he comes to the hydrochloric acid, fumigations, and calomel.

Hydrochloric Acid. This acid, when applied, in a concentrated state, to a sound mucous membrane, causes a coriaceous or pellicular inflammation. A slight superficial touch blanches the epithelium, which is detached and renewed without erosion. But if the action of the acid is prolonged, or its application renewed at short intervals, it produces an ulceration covered by a whitish concretion, which requires a longer or shorter time to cicatrize. It is necessary to be aware of these facts when we have recourse to this acid with the view of modifying the diphtheritic inflammation, in order that we may not confound the phenomena of the remedial process with those of the disease. *The best plan is to let the first applications be energetic, and not too frequently repeated.* Dr. Bretonneau has tried various modes of applying the acid to the pharynx and tonsils, and the following is that which he prefers. A piece of fine sponge is to be securely fixed on the end of a flexible whalebone probang, which is to be bent to a convenient form by heating and softening it in warm water. The sponge is to be dipped in the *concentrated acid*, and then gently pressed, so as to be left just moistened with the fluid. This precaution is necessary, lest, in the convulsive movements of the palate, some acid should be diffused beyond the parts designed to be cauterized. By these means it is easy to apply the acid, and to graduate its strength by various proportions of honey. When thus diluted it spreads beyond the part with which the sponge first comes in contact, and is only to be used in this manner,

when the diphtheritic inflammation has gone beyond the reach of the eye, in its progress downwards.

The first effect of this topical treatment is to give the incipient inflammation a graver aspect. The concretions appear to be thickened and more extended. In 24 hours the action of the acid will have reached its utmost boundary. If the concretions do not now appear to have extended—or if they are becoming detached, we may prognosticate that the specific inflammation is already modified—and the topical applications need only be made at lengthened intervals, and of a weaker power. For the cases illustrative of this mode of treatment, we must refer to the work itself. It will be sufficiently obvious that this practice can only apply, with any prospect of advantage, to the diphtheritic inflammation, in the mouth and fauces. When the exudation has spread into the larynx and trachea, it is, of course, beyond the reach of sponge and acid. Some other mode of treating the disease must then be pursued.

Fumigations. Several times, when the diphtheritis had gained the mucous membrane of the larynx;—when it was no longer possible to apply to it the concentrated or diluted acid—and before Dr. Bretonneau had experienced the beneficial effects of calomel administered internally, he tried fumigations of the hydrochloric acid. Every one knows how diffusibly irritating this acid is when in a state of vapour, and how readily it excites inflammation in the mucous membrane of the lungs. This effect is precisely that which Dr. Bretonneau wished to produce, in order to modify the specific inflammation by the substitution of one less dangerous, and more easily removed.

Five times this experiment was tried, and with success. In the sixth case it proved fatal. This procedure is, in fact, dangerous and difficult to manage. It was renounced by Dr. Bretonneau, as soon as he had found in calomel a resource equally efficacious and much less hazardous. “There are circumstances (very rare it is true) where the calomel itself may prove a poison; and in such cases it would perhaps be better to try the acid fumigations than to abandon the patient to inevitable death.”

Mercurial Treatment. After the legion of La Vendée had departed from Tours, their barracks were occupied by the 44th Regiment, and in a few days afterwards three of the soldiers became affected with the malignant angina. In two of these, the disease was arrested early by the topical treatment

already described. The third was not so fortunate, and was sent to the general hospital, where he came under our author's care. The inflammatory concretion covered both tonsils, and was found to spread out of sight beyond the pharynx. This man was 23 years of age, stout, and previously in rude health. His breath was insupportably fetid—the sides of the neck considerably tumefied—the face flushed—pulse strong and quick—frequent cough, with mucous, transparent, and frothy expectoration. Experience had, in numerous instances, proved the inefficacy of blood-letting in the disease. A mixture of equal parts of honey and concentrated acid, was applied by means of the sponge to the tonsils and adjacent parts. The tone of voice did not, as yet, indicate the formation of false membrane in the trachea; but the abundance and limpidity of the expectorated mucus left no doubt that the irritation and inflammation which precede the coriaceous exudation, had already reached the air-passages. It was therefore evident that it imported but little to modify the disease in the pharynx, while it was making progress in the trachea and bronchia. All other general modes of treatment had hitherto failed in this disease, and therefore the mercurial plan was adopted as offering the only chance of success. Three grains of English calomel were administered every hour at first. The tongue, which was covered with a whitish crust, began, in the evening, to moisten, and clean at the point—the swelling of the tonsils was rather diminished—and the fetor of the breath was gone. But the cough was become rough and croupal. Mercurial frictions on the neck, chest, and arms were directed to be employed every three hours through the night. In the morning, no mercurial affection of the mouth had yet taken place. The tongue was still further cleaned than the day before. Membraniform concretions floated in the expectoration, which was copious and semi-transparent. These shreds must have come from the trachea, as the crusts were still undetached from the pharynx. They were in the shape of narrow bands; serrated at the edges, and some of them three inches in length, by two or three lines in breadth. They had not yet acquired the consistence of those false membranes that are formed into complete tubes; but, on accurate examination with glasses, they were found to possess all the other characters of the croupy exudations. The mercurial frictions were continued, but with longer intervals, and the calomel repeated as on the preceding day. In the evening the cough was less croupy—the expectoration less copious, and more opake, or like pus; but still mixed with a considerable quantity of the croupy concretion. The stools

were of a green colour. *3d day of mercurial treatment.* (6th day of the disease.) Eight frictions had now been employed, and sixty grains of calomel taken internally, but without any indication of mercurial sore mouth. The concretions were almost entirely detached from the pharynx, leaving the subjacent mucous membrane bare and in a healthy condition. The mercurial frictions were discontinued, and the calomel given every two hours. *4th day of treatment.* The pharynx is entirely clean—the expectoration thick and muco-purulent, still containing shreds of the croupy concretion. Three or four evacuations in the 24 hours. The mercury discontinued. One ounce of the strong mercurial ointment, and two drachms and a half of the calomel had been used in the course of about 72 hours. From this time the cough diminished rapidly, and convalescence advanced.

Many cases are given illustrative of the beneficial effects of the mercurial treatment, for which we must refer to the work.

Dr. Bretonneau has also a long chapter on the injurious effects of mercury in certain constitutions, and especially where patients have been exposed to wet and cold during or immediately subsequent to the mercurial influence on the system. These subjects need not detain us here, as we are familiar with such effects in this country.

Our author directs the calomel to be given in doses of one or two grains every hour, mixed with sugar, and placed on the tongue. In this manner the mercury acts topically as well as constitutionally, and on the digestive organs. Mercurial frictions are, in the mean time, not to be neglected—"by combining these means, we shall often obtain the most unlooked for success." The following case is introduced as an example.

Case. F. P. aged 7 years, has complained for five days of sore throat, with swelling of the glands in the neck, fever, &c. On the sixth day the symptoms had rather abated. On the 7th day, the cough became very troublesome, and, towards the evening, it was croupal, the expectoration copious, glairy, and frothy, presenting fragments of croupy concretion, evidently from the larynx. There was now orthopnoea, sibilant inspiration, alteration of the voice. On examination, it was found that the throat was coated with a croupy concretion, of a whitish yellow colour. *Four grains of calomel were ordered every hour.* After the fourth dose, the expectoration was freer and more copious, and, in a fit of coughing, a membranous tube, three inches in length, was thrown up. The breathing, after this, was more free. Two alvine evacuations. *2nd day of treatment.* The breathing is again very difficult—somnolency—livid tint of countenance—incipient asphyxia. Mercurial frictions, with the strongest ointment, were employed every three hours, on the

arms, neck, and chest. There was now great nervous agitation, convulsive cough, and another expulsion of a large quantity of concretion. The anterior portion of the tongue is clearing fast. *3d day of treatment.* The cough is less hard, the breathing easier. *Two grains of calomel every hour.* *4th day.* Ten frictions and 120 grains of calomel had now been used in about 50 hours. The gums were slightly affected—the breathing is still freer—the countenance nearly natural—the expectoration more bland—the voice clearer. In three days more the convalescence was complete, and no relapse followed.

“It is with a facility like this that, most commonly, the calomel modifies the diphtheritic inflammation, even when it has invaded the larynx and trachea. Such, also, is the rapid march of convalescence. But if the patient be exposed to cold, if the mercury be pushed too far, then we have a formidable train of symptoms ensue, and severe ulcerations of the skin and mucous membrane may follow.” In the severe cold of February, 1826, Dr. Bretonneau saw these effects produced in three patients who were deprived of the comforts of life, and of sufficient protection against the rigour of the season. When the patient's circumstances are more favourable, the physician may, with common precaution, avoid all the bad consequences of the mercurial influence, and secure to his patient all its beneficial effects.

Tracheotomy. We now come to an interesting question. Are we, when all medicinal agents fail in giving relief, to sit down quietly and see the patient expire from a mechanical impediment to the function of respiration? Some efforts which have been made in the cause of humanity forbid this supineness. M. Bretonneau has performed tracheotomy, under such circumstances, in three instances, and in one with success. The Count de Puysegur had already lost three of his children by this dangerous malady; and the fourth was seized with the disease.

Case. Eliza de Puysegur, aged four years, of delicate constitution, but who had enjoyed good health, with the exception of a tertian fever which she had a year previously, was seized, on the 15th of June, 1825, in the morning, with dry cough, which increased towards mid-day, accompanied by swelling of the tonsils. 16th. The same symptoms; but in the night there was fever, with a barking cough. 17th. The breathing was noisy during sleep—the cough not so frequent. 18th. The little patient was brought from the country into town, a distance of 30 miles, and got some cold on the journey. Dr. Bretonneau was summoned to see her. She had now no fever, her appetite had not failed, and the cough was not very troublesome, but increased in the course of

the night. 19th. A white patch on the left tonsil. *An emetic mixture.* In the evening the tonsils were swelled, and rather red. On the left there was an oblong patch bordered with redness, on the centre of its surface—lymphatic glands at the angle of the jaw swelled—cough short and dry. The hydrochloric acid was applied, by means of a sponge, to the tonsils, which assumed the usual white colour on being touched. The action of vomiting then took place. 20th. At three o'clock in the morning, the cough had become very much increased, but was accompanied by some expectoration of mucus. Two grains of calomel were given every two hours. At midday, there being some colicky pains, castor oil was given, and produced evacuations both upwards and downwards. In the evening the cough was looser, the deglutition easy, and there was no fever. The night was calm. 21st. Several stools to-day—cough loose. Some confectionary was given to the little patient this day. In the night the cough became dry, short, and frequent. Yet the fauces were pale, and the spot on the tonsil not extended. The voice is altered. Three grains of calomel, in three doses, given in the night. As the epidemic was not raging at this time, Dr. Bretonneau did not consider the disease as true diphtheritis, and was thus thrown off his guard. He did not prescribe calomel in doses proportioned to the danger which was at hand. 22d. (7th day of the disease.) At four o'clock this morning the inspirations became croupal, the lips of a violet colour, the cough convulsive, and followed by the exspuition of a membraniform concretion, ten lines in length, bifurcated, tenacious, and elastic. The pharynx had the same appearance as yesterday. The cough was decidedly croupal. Two grains of calomel every hour. The cough became more and more distressing, the inspirations convulsive, and the muscles on the front of the neck in violent action. The calomel was now given every half hour, and twenty-two grains were thus administered. Another and a much larger portion of concretion was thrown off by the cough, its form and dimensions leaving no doubt that it came from the trachea. The difficulty of respiration was not diminished by this expulsion. The calomel was given at still shorter intervals, and mercurial frictions were added. The inspirations became hourly more stridulous, and the action of the muscles on the neck more strenuous. Two grains of the polygala. A blister was applied to the larynx, and, as Dr. Bretonneau anticipated the operation of tracheotomy, care was taken not to allow the vesication to go below the thyroid region. The danger now became more and more imminent. Somnolency was fast increasing, in spite of the cough. The neck was swelled—the face livid, with every symptom of incipient asphyxia. The operation could no longer be deferred, and judging from the two former trials of this desperate remedy, sanguine hopes could not be held out to the agonized parents. In the two cases here alluded to, Dr. Bretonneau had made use of a small gum-elastic tube, which did not at all succeed in admitting and giving vent to a sufficient quantity of air. To this he attributed, and probably with reason, the fatal issue of the cases. In the present instance, he provided himself with a proper silver tube, of larger calibre,

and then proceeded to the operation. The steps of this we need not detail, as they are familiar to surgeons in this country, in consequence of the comparative frequency of its performance here. The operator was exceedingly embarrassed by the convulsive action of the muscles, and the hæmorrhage from the thyroideal veins, some of which were as large as a crow-quill. The hæmorrhage at length being restrained, five rings of the trachea were divided, and the silver canula introduced. The breathing was instantly relieved. The canula was secured, and the quantity of blood lost was estimated at six ounces. Immediately after the operation, the child made signs for drink, and carried the cup to its own mouth, without assistance. A quantity of bloody mucus was ejected through the tube every time the cough was excited, and our author saw with satisfaction some long strings of the pellicular concretion mingled with the mucus. The night was spent quietly. The cough was not so frequent, and was always accompanied by expulsion of membraniform shreds. The child had two hours sleep. *Eight grains of calomel were blown in through the canula into the trachea. 2nd day after the operation.* The breathing is again become noisy, short, difficult, and accompanied by great muscular exertion—pulse accelerated. It was perceived that the calibre of the tube was diminished by mucosities, and the calomel adhering to its internal surface. It was withdrawn, cleaned, and replaced without difficulty. The breathing immediately became easier, and the pulse reduced in frequency. *3d day.* The patient has had tranquil sleep till 2 o'clock this morning, when the cough became troublesome, and some fragments of croupy concretion were expelled through the tube. The canula was again withdrawn and cleaned as before. Its introduction was this time very difficult. *4th day.* The cough was troublesome in the night—the tube became displaced, and was re-introduced with the greatest difficulty. Much membranous concretion thrown out during these trials. One piece of membrane which came away bore the impression of the interior of the glottis. The breathing became easier after this. *5th day.* The night was spent pretty quietly. The tube was displaced once or twice, and, while out, it was ascertained that some air was inspired and expired by the natural passage. Some violent convulsive coughing came on to-day—the tube was withdrawn—and several fragments of concretion came away. *6th day.* The air passed this day freely through the larynx when the tube was stopped or withdrawn. The canula was kept out for half an hour. We need not detail the case any farther. The tube was dispensed with on the 10th day after the operation, but large quantities of croupy membrane continued to be discharged by coughing for many days in succession. The little patient recovered.

Dr. Bretonneau has only been able to find one well authenticated instance on record where tracheotomy was successfully performed in croup. This was a case by Mr. Andree, which happened about the year 1782. We do not now remember where this case is recorded. In the 6th volume of the Medico-

Chirurgical Transactions, the late Mr. Chevalier published his case of bronchotomy in a child seven years of age. The little patient had thrown off a quantity of the membranous concretion; but, on the following day, he was on the point of suffocation, and Mr. C. performed the operation, which gave immediate relief, and the child recovered. In the second volume of our *analytical series*, (Dec. 1821) we made our readers acquainted with Mr. Carmichael's two cases of tracheotomy, one of which was successful. They were, however, in adults and for laryngitis. In the same volume of our Journal, page 878, we introduced a successful case of tracheotomy by Mr. Porter of Dublin, for the relief of laryngitis. In the second volume of our present series, p. 215, we gave a case of croup in an adult, successfully operated on by Mr. Hume, of Coventry—and in the same volume, p. 223, a successful operation of tracheotomy, by Mr. Carmichael, of Dublin, in a case of laryngitis. Mr. Goodeve, of Clifton, lately performed tracheotomy with success, in a case of ulcerated larynx. The tube was worn for six months afterwards. Drs. Denmark and Johnson have related a remarkable case, where the tube still continues to be worn by the patient, after a lapse of ten or eleven years. There are some other cases of this kind on record; but these are the principal ones that at present occur to our memory. They are sufficient, in connexion with the very important case which we have translated from Dr. Bretonneau, to induce a hope that tracheotomy will be more frequently resorted to in croup than formerly.

We cannot pass over in silence the curious coincidence pathological and therapeutical, between Dr. Bretonneau and Mr. Mackenzie, of Glasgow. Mr. Mackenzie not only avers that the croupy exudation very frequently begins on the tonsils, and spreads thence to the larynx and trachea; but he proposes the very same remedy—caustic to the incipient inflammation. The Frenchman uses muriatic acid—the Englishman *argentum nitratum*. As far as *ex professo* publication goes, Mr. Mackenzie has the claim to priority—his observations appearing in April, 1825. But it must not be concealed that Dr. Bretonneau's memoir was read at the Royal Academy of Medicine in the year 1821—and what is still more important, that M. Guersent had, long previously to Mr. Mackenzie's publication, given an outline of Dr. Bretonneau's pathology and practice in the New Dictionary of Medicine, under the article *Angine Couenneuse*, and also *Croup*. These facts, we fear, must not only deprive our countryman of the claim to priority, but induce some suspicion that Mr. Mackenzie, who is intimately acquainted with

all continental writings, could hardly be ignorant of the doctrine and therapeutics of Dr. Bretonneau, at the time he published his paper in the Edinburgh Journal. Mr. Mackenzie hints, indeed, that he received his information respecting this peculiar treatment of croup from some other person—but who this person is, he does not inform us. The present article will probably induce him to be more explicit on this point.

The work which we have just analyzed we consider as interesting; and we hope it will lead practitioners to examine with attention the primary phenomena of croup, in order to ascertain whether or not it so frequently commences on the surface of the tonsils as Dr. Bretonneau and Mr. Mackenzie affirm. It will also lead them to pay great attention to what is called malignant or ulcerated sore throat, since it is fairly shown that the inflammation often spreads to the larynx, and there proves a dangerous or fatal disease. If the topical applications recommended by these two authors prove as useful in the hands of others as in their own, the present article will not be destitute of interest, or unattended by benefit to the profession and to society at large. Under this impression, and with this anticipation, we commit it to their examination.

IX.

I. *A System of Phrenology.* By GEORGE COMBE, President of the Phrenological Society, &c. &c. 2nd Edition, 8vo. Edinburgh and London, 1825, pp. xxiv. 566.

II. *Phrenology, in connexion with the Study of Physiognomy.* By G. SPURZHEIM, M.D. Part I. Characters, with 34 Plates. Treuttel and Wurtz, London, July, 1826.

PHRENOLOGY is more intimately connected with the applications of medical knowledge than may at first sight be apparent: on this account, therefore, we recognize in the science of its principles a legitimate and useful subject of professional inquiry. We must acknowledge, at the same time, that we feel impelled, by the pure force of multifarious and unquestionable evidence, to regard this as the most intelligible and self-consistent system of mental philosophy that has ever yet been presented to the contemplation of inquisitive men. Similar sentiments, we doubt not, will be excited in the mind of every one who impartially examines this very comprehensive work of Mr. Combe's; and, to such of our readers as may not be intimately acquainted with the sublimer doctrines of his

favourite science, we hope to do an essential service in affording them an opportunity of retracing the method, at once profound and simple, by which this excellent moralist unfolds the more manifest as well as the most mysterious "bearings" of our nature. In attempting this important duty, however, we shall be obliged, for obvious reasons, to pass, with a reference only, the questions in phrenology, which we had illustrated at considerable length, in our Numbers for March, 1823, and March, 1824; but, with regard to these and to the views of Mr. Combe, which we now propose to exhibit in a state of analytical concentration, we ask nothing else than their being calmly investigated by the laws of inductive philosophy. Let none of us admit any doctrine of phrenology, because its advocates affirm its truth: neither let us, on the other hand, despise or condemn it merely because this has been done (in too many instances without examination) by individuals, in courteous phrase, denominated wise men and philosophers. The phrenologists may err, and their adversaries may err, but Nature is ever true in all her manifestations; let us, therefore, observe and judge of these for ourselves, without being prejudiced by the tiny pratings of vain and ignorant persons who affect to depreciate the phrenological system without so much as understanding the elementary principles on which it is constructed.

Mr. Combe opens his work with some introductory observations which include questions, in the highest degree important; they are stated with great perspicuity; in general, they are profound and eloquent: his reasonings, in our mind, are quite demonstrative of his doctrines. He defines phrenology to be a system of philosophy of the human mind adapted to explain the primitive *powers* of feeling which incite mankind to action, and the *capacities* of thinking that guide our actions till we attain the object of our desires. In proceeding to take a view of the mental manifestations, he commences with a remark which is too concise to admit of analysis, and too exquisite to be otherwise than debased by change of diction: we would, therefore, retain its original beauty in an entire transcription.

"The human mind," he observes, "as it exists in this world, cannot, *by itself*, become an object of philosophical investigation. Placed in a material world, it cannot act, or be acted upon, but through the medium of an organic apparatus. The soul, sparkling in the eye of beauty, does not transmit its sweet influences to a kindred spirit, but through the filaments of an optic nerve; and even the bursts of eloquence which flow from the lips of the impassioned orator, when mind appears to transfuse itself almost directly into mind, emanate from, and are transmitted to, corporeal beings through a voluminous apparatus of organs. If we trace the mind's progress from the cradle to the grave, every appearance which it presents, reminds us of this important truth. In earliest life, the mental powers are feeble as the body, but when manhood comes, they glow with energy, and expand with power; till, at last, the chill of age makes the limbs totter, and the fancy's fires decay. Nay, not only in the great stages of our infancy, vigour and decline, but the experience of every hour reminds us of our alliance with the dust. The lowering clouds and stormy sky depress the spirits and enerve the mind;—after short and stated intervals of toil,

our wearied faculties demand repose in sleep ;—famine or disease is capable of levelling the proudest energies in the earth ;—and even the finest portion of our compound being, the mind itself, *apparently* becomes diseased, and leaving Nature's course, flies to self-destruction to escape from pain. These phenomena must, however, be referred to the organs with which, in this life, the mind is connected ; but, if the organs exert so great an effect over the mental manifestations, no system of philosophy is entitled to consideration, which would neglect their influence, and treat the thinking principle as a disembodied spirit. The phrenologist, therefore, regards man as he exists in this sublunary world ; and desires to investigate the laws which regulate the connexions between the organs and the mind, but without attempting to discover the *essence* of either, or the *manner* in which they are united."

Our author next adverts to the prejudice which has arisen against the physiology of man from the defective practice of Locke, Hume, Reid, Stewart, Brown, and other distinguished metaphysicians, in studying the mind with too little reference to the body ; as if, he says, the mind were degraded by contemplating it in connexion with matter : but man, he adds, is the work of the CREATOR of the universe, and no part of his constitution can be unworthy of regard and admiration. The whole phenomena of life, Mr. C. very justly observes, are the result of mind and body joined, each modifying each ; and how, he asks, can we explain a result, without attending to *all* the causes which unite towards its production ? Equally erroneous as this, is the false and vulgar notion of those persons, who would teach us that the mind is nought but a combination of matter, and that its functions may be explained by mechanical motions in its parts : the only legitimate and philosophical method of investigating the question, therefore, consists in *observing* the laws that regulate the union of the corporeal and mental parts of man, without pretending to discover the *essence* or *modus operandi* of either.

Mr. C. then directs our attention to the variety of the mind's endowments, and to the remarkable circumstance of " the savage and the sage " having in all ages admitted it to be possessed of different powers ; but, at the same time, being utterly at variance with regard to the number and nature of the mental faculties. This leads him to expose the discordant hypotheses advanced on this head by the ontological sophists of all kinds, from Aristotle to the late amiable and erudite Dr. Brown, who have puzzled themselves and the readers of their books with attempts at the mystifying of subtilities, of which their own fancies were the principal source. He concludes, by shewing that, after the lapse and labour of more than two thousand years, philosophers are not yet agreed concerning the existence of many of the most important principles of action, and intellectual powers of man. How can they be so agreed, since they have all along conducted their speculative inquiries on foundations manifestly unphilosophical and by a method as manifestly imperfect ? Ten men, we might say, or twenty men, or ten times twenty men, may pass all the days of a lengthened age in ruminating, each on the modifications of his own consciousness ; but how, we might then ask, can their

observations, so few in number and so circumscribed in sphere, be capable of explaining even a tittle of the infinitude of mental manifestations exhibited by the myriads of mankind under the countless influences of constitution and circumstances, to which all their natures are perpetually exposed? The thing is obviously and altogether impossible. When we find two human countenances in all respects identical, then, but not till then, may we hope to discover two identically constituted minds. If, therefore, says Mr. C. phrenology could introduce into the philosophy of mind even a portion of the certainty and precision which attend physical investigations, it would confer no small benefit on this interesting department of science; and this much, notwithstanding the noisy opposition it has sustained, we believe it to be fully competent to do, because its principles are uniform as the elements of nature, and permanent as the eternity of truth.

Supposing the number and nature of the primitive mental faculties to be ascertained, it is to be observed, Mr. C. adds, that in actual life they are successively developed. The infant feels before it is observant; it observes occurrences long before it reasons: and it feels love, fear, attachment, before it is alive to the sublime or the beautiful: hence, a correct theory of mind ought to unfold principles to which these facts may be referred. Even after the maturity of age, how *different are the degrees* in which we are endowed with the various mental powers! Admitting, he goes on to say, each individual to possess all the faculties, the assemblage of which constitutes the human mind, in what a *variety of degrees of relative strength* do they appear in *different* persons? We quote his illustrations, admiring their conclusiveness and impressive eloquence.

“In one,” he says, p. vi. “the love of glory is the feeling which surpasses all; another is deaf to the voice of censure, and callous to the accents of applause. The soul of one melts with softest pity at a tale of woe; while the eye of another never sheds a sympathetic tear. One individual spends his life in an ardent chace of wealth, which he stops not to enjoy; another scatters in wasteful prodigality the substance of his sires, and perishes for want, from a mere incapacity to retain. One vast intellect, like NEWTON’S, fathoms the profundities of science; while another feeble mind scarcely gropes its way through the daily occurrences of life. The towering imagination of a SHAKESPEARE, or a MILTON, soars beyond the boundaries of sublunary space; while the sterile fancy of another sees no glory in the Heavens, and no loveliness on earth. A system of mental philosophy, therefore, pretending to the truth of nature, ought not only to reveal the simple elements of feeling and of thought, but enable us, likewise, to discover in what *proportions* they are combined in different individuals. In chemistry, one combination of elementary ingredients produces a medicine of sovereign virtue in removing pain; another combination of the same materials, but differing in their relative proportions, brings forth a mortal poison: so, in human nature, one combination of faculties may produce the midnight murderer and thief; and another, a FRANKLIN, a HOWARD, or a FAY, glowing with charity to man.”

Instead, however, as our author well observes, of obtaining rules by which to discriminate the effects produced upon the character and con-

duct of individuals by different combinations of the mental powers, we find the works of philosophers on the mind to be only a never-ending series of disputes, whether such differences do exist in nature or are the result of education and other adventitious circumstances. Hence, this department of the science of man remains a perfect waste, uncultivated and unimproved; and hence, on surveying it as exhibited in these recondite discussions, we perceive, says Mr. C. *first*, That no account is given of the influences of the material organs on the *manifestations* of the mental powers; and that the progress of the mind from youth to age, and the phenomena of sleep, dreaming, idiotcy and insanity, are left unexplained or unaccounted for, by any principles admitted in their systems; *secondly*, That the existence and functions of some of the most important primitive faculties are still in dispute; and, *thirdly*, That no light whatever has been thrown on the nature and effects of combinations of the primitive powers in different degrees of relative proportion.

From this Mr. Combe goes on to consider the investigations of human nature by another class of observers,—moralists, poets, and divines. His remarks on this head are most pertinent.

“These,” he says, p. ix. “have looked upon the page of life merely to observe the characters there exhibited, with the view of tracing them anew in their compositions: and certainly they have executed their design with great felicity and truth. In the pages of SHAKESPEARE, ADDISON, JOHNSON, TILLOTSON, and BLAIR, we have the lineaments of mind traced with a perfect tact, and exhibited with matchless beauty and effect. But these authors had no systematic object in view, and did not aim at connecting their observations by principles which might render them subservient to the *elucidation* of the phenomena of life, in less skilful hands than their own. Hence, although in their compositions we find ample and admirable materials for the elucidation of a true system of the philosophy of man, yet, without other aids than they supply, we cannot arrive at the fundamental principles which ought at once to unite and explain their observations. Phrenology, therefore, if a true system of human nature, ought to furnish, to the popular reader, the key of philosophy to unlock the stores of intellectual wealth contained in the volumes of our most admired and instructive authors.”

Mr. C. next surveys the processes by which the physiologists have endeavoured to ascertain and determine the parts of the body with which the several mental powers are most closely connected. Some of them have dissected the brain, in the hope of discovering in its texture an indication of the functions which it performs in relation to the mind: when we examine, however, with the most scrupulous minuteness, the form, colour, and texture of the brain, no sentiment can be perceived slumbering in its fibres; no half-formed ideas starting from its folds: it appears to the eye only as a mass of curiously convoluted matter, and the understanding declares its incapacity to penetrate the purposes of its parts. The moral sentiments have been derived, by others, from various viscera, or from the plexus and ganglia of the great sympathetic nerve; but comparative anatomy and physiology entirely contradict this opi-

nion. There are animals endowed with faculties attributed to certain viscera, which do not possess these viscera : insects, for instance, become angry, and have neither liver nor bile. Oxen, horses, and even hogs, have many viscera in structure analogous to those of man, and yet they want many faculties which are ascribed to these viscera, and with which man is endowed. The heart has been regarded as the seat of the tender affections ; but the heart of the tiger and of the lamb are alike in structure, and the one ought to be the organ of cruelty and the other of meekness, if this supposition were true. Others, again, have compared the size of the brain of man with that of the lower animals, contrasting, at the same time, their mental powers ; and have been led to conclude that it is the organ of mind, and that its greater development in man indicates his mental superiority over the brutes : but, says Mr. C. these philosophers have not succeeded in determining the functions of the different parts of this organ, and have not in any important degree been able to connect their discoveries with the philosophy of mind. Camper, in order to measure the brain's dimensions, and, as he imagined, the corresponding energy of the mental powers, adopted the *facial angle* ; but, as this angle applies only to the anterior parts of the brain situated in the fore-head, to the exclusion of all the lateral and posterior parts ; and as, in many negroes, the jaw-bones are extremely prominent and the facial angle acute, while their foreheads are in fact largely developed and their intellectual faculties powerful, yet, by this rule, they ought to be inferior to many stupid Europeans, whose foreheads are deficient and whose jaws recede. Hence, the facial angle cannot serve as a means of measuring the moral sentiments and intellectual faculties. According to SOEMMERRING and CUVIER, who compare the size of the brain in general with that of the face, animals are more stupid as the face is larger in proportion to the brain. The infallibility of this rule, however, is easily proved ; because LEO X. MONTAIGNE, LEIBNITZ, HALLER, and MIRABEAU, had large faces and very considerable brains : BOSSUET, VOLTAIRE, and KANT had, on the contrary, small faces and also large brains. The cerebral parts, in fine, have likewise been compared with each other, as the brain with the cerebellum, with the medulla oblongata, or with the nerves, in order to ascertain their functions ; but these modes, like the others, have led to no satisfactory results. We all know, indeed, that no theory of the functions of the brain is yet admitted and taught in the schools as certain science, such as the doctrine of the circulation of the blood and the offices of the muscles and nerves.

With these observations, the importance of which we are desirous of impressing on the minds of our readers, Mr. Combe naturally arrives at the inquiry, "in what manner, then, do the phrenologists pretend to succeed in an investigation which has baffled so many ingenious men ?" This leads him to give an historical account of the origin and progressive development of the new philosophy ; but, having retraced this in a former article, we shall conclude this branch of our subject with the observations of an illustrious metaphysician, which, says Mr. C. are pe-

cularly applicable to the history and prospects of phrenology. "TRUTH" (it is Locke who speaks,) "*scarce ever yet carried it by vote any where, at its first appearance. NEW OPINIONS are always suspected, and usually opposed without any other reason, than because they are not common. But TRUTH, like gold, is not the less so, for being newly brought out of the mine. 'Tis trial and examination must give it price, and not any antique fashion; and, though it be not yet current by the public stamp, yet it may, for all that, be as old as nature, and is certainly not the less genuine.*" If these excellent sentiments exert the right influence on the mind of an unprejudiced medical inquirer after truth, they will naturally affect it with intermingled feelings of shame and exultation, in reverting to the persecutions of our immortal HARVEY!—this true philosopher was long and loudly reviled as a *knave and a quack*, for discovering and teaching the circulation of the blood!

By this sketch of his introductory observations now submitted to their attention, our readers will be satisfied, without further evidence, that Mr. Combe is a logician of no ordinary powers, and that his manner of philosophizing is as temperate and dignified as his arguments are conclusive. The pure desire of imparting useful knowledge and of establishing instructive truth, exclusively of all other ends, is so remarkable and manifest in each of his descriptions, discussions, and inductions, that every upright inquirer, whatever may be his sentiments regarding the true value of phrenology, must approve and even be delighted with the generous zeal and philanthropy which universally pervade our author's "System," and render it a beautiful model of scientific doctrine. For this reason we are solicitous of persuading all those, whom our own example may tend to influence, to examine it with deep attention; and, on their doing this, we can assure them that, though it should fail of inducing them to admit the particular views of Mr. C: it will at least convince them of its being powerfully adapted to make us good men and liberal philosophers.—As this valuable work itself is, in fact, an analysis of an intricate and comprehensive science, and by consequence in a great measure insusceptible of condensation, we shall premise a synoptical outline of its subjects and then make such selections, in extract and abridgement, as may conduce to the promotion of our object, on this and every other occasion;—viz. *a spirit of free and rational inquiry into the nature and applications of TRUTH.*

Mr. Combe distributes his "System" into these four principal divisions;—principles of phrenology; division of the faculties; modes of activity of the faculties; objections to phrenology, and an appendix, containing arrangements of the organs by Drs. Gall and Spurzheim; notes on individuality by Mr. Scott and the Rev. Mr. Welsh, and an interesting addition to the section on the harmony of the faculties from the author's own pen.

I. PRINCIPLES OF PHRENOLOGY.—Two important propositions are explained and demonstrated, at the outset of this division, viz. That the dispositions and capacities of individuals can be discovered; and that

the size of different parts of the brain can be ascertained, during life. The chief difficulties in discovering the form of the brain are next considered, and satisfactorily removed. Mr. C. then proceeds to teach the practical application of the phrenological principles; and, under this head, he inculcates the fundamental doctrine,—*that size in the cerebral organs indicates power in the mental faculties*; shews with much precision, that *power* is distinguishable from *activity*; and gives rules how to estimate size as well as to designate its relations in terms and numerals. This is followed by some instructive remarks on the brains of the lower animals, and on the circumstances which modify the effects of size: this part of the work concludes with a definition of *activity*, which means the *rapidity* wherewith the faculties may be manifested, and with illustrations of the aphorism, *that the LARGEST organs in each head have the GREATEST, and the SMALLEST the LEAST, tendency to natural activity*.—We cannot pass from this section without entreating our readers, as they value the improvement of *medical* philosophy, to examine these questions dispassionately: an extract from the “System” may serve as a foretaste of the satisfaction such an inquiry will afford to the unprejudiced mind.

“Human phrenology,” says Mr. C. p. 46, “is founded, not on analogy, but on positive observation. Some persons are pleased to affirm, that the brains of the lower animals *consist of the same parts* as the human brain, only on a *smaller scale*: but this is highly erroneous. If the student will procure brains of the sheep, dog, fox, calf, horse or hog, and compare them with the human brain, he will find a variety of parts, especially in the convolutions which form the organs of the moral sentiments and the reflecting faculties, *wanting* in these animals.”—“It is proper to advert to certain conditions which may co-exist in the brain with *size*, and to attend to their effects. *Power* in the manifestations and *size* in the organ, are in the *general case* proportionate; and when differences in size are considerable, no circumstance, consistent with health, will render the manifestations equal in power: one brain, however, may be more perfect in constitution than another, and in consequence act more vigorously, although not larger in dimensions; but these differences are slight and their effects limited. Size, then, is not the *only* requisite to the manifestation of great mental power: the brain must possess also a healthy constitution and that degree of *activity* which is the usual accompaniment of health. Now, the brain, like other parts of the body, may be affected with certain diseases, which do not diminish or increase its magnitude, and yet *impair its functions*; and, in such cases, great size may be present, and very imperfect manifestations appear: or, it may be attacked with other diseases, such as inflammation, or any of those particular affections *whose nature is unknown*, but to which the name of *mania* is given in nosology, and which greatly exalt its action; and then very forcible manifestations may proceed from a brain comparatively small: but it is not less true, that when a larger brain is excited to *the same degree by the same causes*, the manifestations become increased in *energy* in proportion to the increase of *size*. These cases, therefore, form no valid objection to phrenology: the phrenologist ascertains, by previous inquiry, that the brain is in a state of health; if it is not, he makes the necessary limitations in drawing his conclusions.”—“Nature admits of no exceptions, and a single instance of decidedly vigorous manifestations, with a small or-

gan, disease being absent, would overturn all previous observations in favour of that organ : but men are liable to err ; and, although an individual phrenologist may have called an organ small, the manifestations of which are powerful, or *vice versâ*, this is not to be precipitately charged against Nature as an exception. Chemists occasionally fail in experiments, mathematicians err in demonstrations, and arithmeticians are wrong in calculations ; and, in like manner, phrenologists may commit mistakes in observing cerebral development. The test in such cases is, to compare the organ in regard to which an apparent discrepancy has occurred, with the same organ in the head of a person whose powers of manifestation are known to be diametrically opposite ; and, if the organs are not perceived by an ordinary eye to differ, then the exception is proved.”—“ If, in each of two individuals the organs of propensity, sentiment, and intellect, are equally balanced, the general conduct of one may be vicious and that of another moral and religious. But the question here is not one of *power*, for as much *energy* may be displayed in vice as in virtue ; but it is one of *direction* merely. Now, in cases where an equal development of *all* the organs exists, *direction* depends on *external* influences, and then no phrenologist pretends to tell to what objects the faculties have been directed, by merely observing the size of the organs.”

II. DIVISION OF THE FACULTIES.—Mr. Combe, in his classification of the mental faculties, continues the arrangement which has been in use, in Britain, since 1815, not because he regards it as the most perfect, but on account of its being as yet the most convenient and familiar : he thinks it preferable, as phrenology is manifestly a progressive science, to delay proposing alterations till they can be made permanent. Looking at the innumerable facts presented by observation in proof of the doctrine, he concludes, that the mind consists of an aggregate of faculties or powers, and the brain of an aggregate of organs ; that every *faculty* of the mind has its own determinate *organ* in the brain ; and that, though the *essence* of the mind be altogether indefinable, its cerebral organs are material, visible, tangible, and readily distinguishable. At the same time, instead of overwhelming his readers with the illimitable mass of evidence on which phrenology is founded, he merely refers them to the various works in which the facts and cases are detailed : but above all things, he says, let those persons who desire philosophical conviction, resort directly to *Nature*, which is always within their reach ; for SELF-CONVICTION CAN BE OBTAINED ONLY BY SELF-OBSERVATION.

Mr. C. distributes the whole mental system into two primary orders—*feelings and intellectual faculties*—which, with their subordinate divisions, we shall exhibit under a synoptical enumeration, interspersed with an extract or occasional remark.

ORDER I. FEELINGS : This contains two genera, the *propensities* and *sentiments*.

GENUS I. PROPENSITIES.—These faculties do not form ideas, and are common to man with the lower animals : their sole function is to produce a propensity or instinctive impulse of a specific kind. Nine of these are established by all kinds of evidence : they have been

denominated, *amativeness*, *philoprogenitiveness*, *concentrativeness*, *adhesiveness*, *combativeness*, *destructiveness*, *constructiveness*, *acquisitiveness*, and *secretiveness*. At p. 113 of the "System," is a very interesting sketch on the *appetite for food*, as a propensity, and the situation of its organ in the brain. Dr. Hoppé of Copenhagen, is of opinion, that, besides the nerves of the stomach and palate, an affection of which gives rise to the sensations of hunger and thirst, there must also be an organ in the brains of animals for the instinct of *nutrition* (taking nourishment for the preservation of life,) which incites them to the sensual enjoyments of the palate, and the activity of which is *independent* of hunger and thirst. How, he asks, should the mere sense of hunger, more than any other disagreeable or painful sensation, make the animal desire food, the necessity of such not being known to him by experience? This could only be effected by *instinct*, because either an instinct, i. e. the immediate impulse of an organ, or else experience and reflection are the causes of all actions. From considerable observation, Dr. H. concludes (*Mr. Combe had previously arrived at a similar induction which, however, his modesty led him to regard as probable only*) that the "organ for taking nourishment" is situated in the zygomatic fossa, and that when fully developed, it occasions a remarkable largeness of the face or head, altogether distinct from that caused by prominent cheek-bones. We recommend this subject and the discussion of it, to those of our readers whose propensities impel them to desire the elucidation of philosophical truth.

GENUS II. SENTIMENTS.—The feelings produced by this kind of faculties are not the *immediate* consequences of the presence of external objects: they are excited, *only indirectly*, through the medium of intellectual perceptions or sensations. They differ from intellectual perceptions in being accompanied with a peculiar vividness, which every one understands, but which it is impossible to express by any verbal definition: they may, moreover, exist with great intensity, by the internal activity of their organs. These faculties have been named *sentiments*, because they determine a propensity to act, joined with an emotion or feeling of a particular kind: they correspond to the class of "*Emotions*" of the metaphysicians. Several of them are common to man and the inferior animals; others are peculiar to man: the former are styled the *lower*, the latter the *higher* sentiments.

1st. *Lower*.—These are four in number, and have been designated, *self-esteem*, *love of approbation*, *cautiousness*, and *benevolence*. In his illustrations of the sentiment of cautiousness, Mr. C. introduces a general remark which ought always to occupy the student's attention. It is a principle in phrenology, he says, that absence of one quality never confers another. Every feeling is something *positive* in itself, and is not a mere negative of a different emotion: fear, for instance, is a positive feeling, and not the mere want of courage; it is produced by the faculty of *cautiousness*, which tends to make the individual appre-

head danger, and thus lead him to hesitate before he acts, and to trace consequences that he may be assured of his safety. Its full endowment is essential to a prudent character : it produces a cautious, circumspect, and considerate disposition of mind.

2nd. Higher.—Besides the faculties and their organs already defined as common to man with the brutes, he is endowed with a variety of sentiments, which constitute the human character, and of which the lower creatures are entirely destitute : the cerebral parts, moreover, that constitute the organs of these faculties are totally wanting in the brains of irrational animals. Such sentiments are named, *veneration*, *hope*, *ideality*, *conscientiousness*, and *firmness*. Additionally to these, is the sentiment of *wonder*, the organ of which is now ascertained to be situated, immediately above ideality, in the blank space that appears in the busts and plates of the head. Medical inquirers will find, in this section, an exposition of several natural manifestations which persons untaught by phrenology would confidently attribute to disease. In analysing the sentiment of veneration, Mr. Combe pronounces the following doctrine, which we regard as being very remarkable both for its sublimity and its truth. “As Nature,” he says, p. 202, “has implanted this sentiment in the mind and its corresponding organ in the brain, it is a groundless terror to apprehend that religion can ever be extinguished, or even endangered, by the arguments or ridicule of the profane. Forms of worship may change, and particular religious tenets may now be fashionable, and subsequently fall into decay ; but, while the human heart continues to beat, awe and veneration for the Divine Being will ever animate the soul ; and the worshipper will cease to kneel, and the hymn of adoration will cease to rise, only when the race of man becomes extinct.”—Such observations convey a dignified admonition to those silly ones, who persevere in claiming importance to their unreasonable gossipings about the *consequences* of the phrenological doctrines,—as if any but *good* consequences can ever result from *Truth*.

ORDER II. INTELLECTUAL FACULTIES.—These communicate to man and animals, knowledge of their own internal sensations, and also of the external world : their object is to know existence, and to perceive qualities and relations. This order consists of four genera including the five senses,—the knowing,—the judging,—and the reflecting powers : they all perceive objects primarily, and then *know*, *judge*, or *reason on*, their essential or relative attributes.

GENUS I. EXTERNAL SENSES.—After reviewing the notions entertained by philosophers in regard to the functions of the senses, Mr. Combe finds himself authorised, by irrefragable reasons, to conclude that they have been whimsical, extravagant and contradictory. According to his own views, each sense performs its functions in consequence of its own innate constitution alone ; and the relations of every sense to external impressions are determinate and subjected to positive laws.

If an odour, for instance, make an impression upon the olfactory nerve, the impression is immediately found to be agreeable or disagreeable; and this feeling arises from the constitution of the sense and the relation established betwixt it and the odorous particles which excite it to activity. The functions of every sense depend only on its peculiar organization; and, hence, no exercise or habit is necessary in order to acquire the special power of any sense: if the organization be perfect, the functions are perfect also; and, if the organization be diseased, the functions are deranged, notwithstanding all preceding exercise. If the optic organs be perfect in newly hatched birds, their sight is perfect, as in chickens, ducks, partridges and quails: if, on the contrary, the organization of the eyes or ears be imperfect, the power of the animal to see or hear is proportionally deficient. In adult persons, vision is deranged, if the eyes be diseased: in the old, the functions of the five senses lose their energy, because the vital power of the organs is diminished.—Nature, Mr. Combe goes on to say, never produced any sense which could not perform its functions, without being supported by another and a different sense,—that, for example, we should not be able to see without feeling, or to hear without seeing. Hence, the propositions appear self-evident, that no sense acquires its functions by means of any other sense, and that any *one* sense cannot be the instrument of producing the sensations experienced by means of *all* the senses collectively. But we must observe, he adds, that different senses may enable us to perceive the same object; and that one sense is more fitted than another to make us acquainted with different objects and their qualities: thus, we may obtain a conception of the figure of a bust, by means of the sense of touch, and also by means of the sense of sight. Each sense, therefore, he concludes, has its peculiar and independent functions, and each is subject to positive laws: but every sense also perceives impressions of which another is not susceptible; and it is in consequence of this circumstance that the external senses *rectify* one another, as metaphysicians phrase it; or rather produce, in our author's words, by their co-operation, an extent of accurate conception which, in an unconnected state, they would have been incapable of producing.

Mr. Combe very justly remarks, that it is a task of considerable difficulty to point out accurately the precise limits of the functions of the senses, because in every act of perception their instrumentality is combined with that of the internal faculties of the mind; and it is not easy to discriminate to what extent the act depends upon the one, and to what extent upon the other. In elucidation of this point, he submits the following considerations. The senses themselves do not *form ideas*: thus, when an impression is made on the hand, it is not the organs of touch which form the conception of the object making the impression; but the nerves in the hand receive the impression, and a *faculty of the mind* perceives the object. Without the nerves of feeling, the internal faculty could not experience the perception; because the medium of communication between it and the object would be wanting: but

neither could the hand experience the perception without the instrumentality of the internal faculty, because the nerves of *feeling* do not perform the function of perception. Previously to every perception, therefore, there must be an antecedent impression on the organs of sense; and the whole functions of these organs consist in receiving and transmitting this impression to the internal faculties. The nature of the impression depends on the constitution of the senses, and on the established relation betwixt them and external objects; and, as it is absolutely impossible for the human will to change either the constitution of the senses, or the relation betwixt them and the external world, it is clearly absurd to speak of *acquired* impressions. As the senses, however, are constituted with a determinate relation to external objects, so the internal faculties are constituted with a determinate relation to the organs of sense. In virtue of the first relation, a certain object makes a certain *impression*; and, in virtue of the second, a certain impression gives rise to a certain *perception*; and both depend on *Nature*, and not on the will, nor on exercise and habit. But we must distinguish betwixt the perceptions we experience of external objects, and the inferences concerning their qualities, which we draw by reasoning from these perceptions. All those ideas, which are pure perceptions, are formed *intuitively, on the presentation of objects fitted to excite them*. Inferences from these, on the other hand, are the result of our *reasoning* powers. What are sometimes called "*acquired perceptions*," are merely *habits of reasoning* from the impressions naturally made on the senses; and these *habits* are just as much a part of our *nature* as the original perceptions. The visible and tangible appearances of bodies are simple perceptions, because, after the amplest experience of some of these being deceitful, we cannot in the slightest degree alter our perceptions of them. If, for instance, a picture be painted according to the rules of perspective and the laws of optics, so as to represent a vista in the country, or a long street in a city, we are altogether incapable, when in the proper position for viewing it, of perceiving the surface to be plain: the picture appears to us to represent objects at different distances, and the most determined resolution to see them all equally near, is of no avail, although we know that, in point of fact, they really are so. Colour, form, magnitude, and distance, appear to me, says Mr. C. to be objects of *intuitive perception*; and, accordingly, no experience, and no repetition of acts of volition, can alter such appearances, if the refraction of light, state of the eye, and the internal faculties, remain unchanged.

Mr. C. regards the following as a correct mode of ascertaining the limits of the functions of the senses. Whatever perceptions or impressions, received from external objects, *can be renewed* by an act of recollection, cannot depend exclusively upon the senses; because the organs of sense are not subject to the will, and never produce the impressions which depend upon their constitution, except when excited by an external cause. On the other hand, whatever impressions we are *unable to recall*, must, for the same reason, depend on the senses

alone. He then illustrates these principles by most appropriate examples: we give one taken from the sense of touch. If, says he, we embrace a square body with the hands, certain impressions are made on the nerves of touch, called sensations, in consequence of which the mind forms an idea of the figure of the body: now, we can recall the *conception* of the figure of the body, but not the sensation which excited it: the conception, therefore, depends on an *internal faculty*, the sensation on the *nerves of touch*. The whole functions of the nerves of touch are to produce the sensation; but the power of conceiving is not in invariable proportion to the power of feeling, but in proportion to the perfection of the internal faculty and the external senses jointly. The perception, however, depends as entirely on nature as the sensation; and the *power* of perceiving the form of the body is not acquired by *experience*. These views of the functions of the senses, which it will be at once observed, correspond perfectly with Dr. Reid's philosophy, are farther illustrated and confirmed by the phenomena which take place, when the organs of sense are diseased. Thus, when the ear becomes inflamed, spontaneous sensations of sound are often experienced: when too much blood flows into the eye, impressions like those of light are felt: when the nerves of taste are diseased, disagreeable savours become perceived: when the nerves of touch suffer excitement from internal causes, a tickling or unpleasant sensation is the result: and, when the muscular system is relaxed by nervous diseases, and flying spasms occur over the body, impressions occasionally arise from these spasmodic affections, so precisely resembling those of touch, that the individual is at a loss to distinguish them.

Our author next proceeds to state briefly the various theories, none of which he holds to be satisfactory, which have been propounded to account for the fact,—*that, though the organs of each sense are double, yet the consciousness of all impressions experienced by the mind is single*. He concludes this statement by remarking, that the mind has no consciousness either of the existence of the organs of sense, or of the functions performed by them. When the table is struck, he says, and we attend to the subject of our own consciousness, we perceive the impression of a sound; but, by this attention, we do not discover that the impression has been experienced by the instrumentality of any organ whatever: hence, the perceptions of the mind are always directed to the objects which make the impressions, and not to the instruments by means of which the impressions are experienced. The instruments perform their function under Nature's care, and are not subject to the will; we should have been distracted, not benefited, by a consciousness of their internal action, when they perform their functions: it is when they are diseased, that we become conscious of their action, and then the consciousness is painful.—But we must, reluctantly indeed, be satisfied with these general remarks; and, in referring our readers to the "System" itself for an acquaintance with these concise and luminous observations of Mr. Combe's on each of the external senses, we would especially impress their importance on the attention of all judicious physiological inquirers.

GENUS II. KNOWING FACULTIES.—These take cognizance of the existence and physical qualities of external objects: they also form ideas and correspond, in some degree, to the “perceptive powers” of the metaphysicians. Their action is attended with a sensation of pleasure, but this, in general, is weak when compared with the emotions produced by the propensities and sentiments: it is a law of the mental economy, indeed, that the *higher* the functions are, the *less vivid* is the emotion attending their active state. This genus comprehends five of the intellectual faculties, and these are named, *individuality, form, size, weight, and colouring*. We cannot undertake more at present than to say simply that our readers will find a delightful and instructive exercise, in examining Mr. C.’s philosophy of these faculties and the manifestations of them through their cerebral organs.

GENUS III. JUDGING FACULTIES.—This kind of the intellectual faculties comprises those which discern or distinguish the relations of external objects, and are called *locality, order, time, number, tune and language*.—Many important discussions are connected with this branch of the subject: we may notice a case, at p. 333, of the *power of using words* having been impaired by disease, while the ability to articulate, and the powers of perception and judgment, remained entire. It is detailed by Mr. Hood, a very intelligent surgeon in Kilmarnock, who enumerates the circumstances from personal observation. The patient, a sober and regular man, aged sixty-five years, and possessed of the ordinary knowledge of written and spoken language, suddenly began to speak incoherently and became quite unintelligible to all those about him; and it was *discovered that he had forgotten the name of every object in nature*. His recollection of *things* seemed to be unimpaired, but the *names* by which *men* and *things* are known, were entirely obliterated from his mind, or, rather, he had lost the faculty by which they are called up at the control of the will. Whether considered as a contribution to the physiology of mind or to pathological science, we do regard this case as being in all respects worthy of serious consideration: the Phrenological Transactions, vol. I. p. 235, and the Phrenological Journal, vol. III. p. 26, contain the history of symptoms, the appearances found on dissection of the brain, and the author’s valuable observations on the disease’s progress and effects. This paper of Mr. Hood’s, indeed, is an excellent illustration of “medical logic:” it, first of all, exhibits a perspicuous detail of facts, and then what the writer regards as the legitimate inductions: it were better for physiology, if equal pains had been expended in determining the *reality* of premises on which important views of man’s complicated nature are sometimes inconsiderately fabricated. We entertain a higher opinion, however, of our readers’ judgment than to conclude that they will adopt this sentiment on our declaration merely: they will go to the original, and examine this singular question with the patience and candour by which the true desire of knowledge shall ever be distinguished. At the same time, they will find Mr. Combe’s general

analysis of the functions of Individuality and the other *knowing* faculties, which intervenes between this and the next genus, to be characterized by his usual sagacity and great reach of mind.

GENUS IV. REFLECTING FACULTIES.—These produce ideas of relation; and, in ministering to the direction or gratification of all the other powers, constitute reason and reflection. They are, *comparison, causality, wit, and imitation*. In the discussions which unfold the elementary constitution of these faculties and their operations, we are necessarily invited to enter the depths of metaphysical inquiry; but into these, of course, it would not be suitable for us to penetrate. As, however, it is in some degree fashionable within the precincts of certain gregarious coteries, to stigmatize phrenology, as leading to the worst results, viz. “*materialism, fatalism, and the most abominable atheism,*” we would just take occasion to advise a calm perusal of Mr. Combe’s concluding paragraphs on Causality, where will be found a true picture of the manner in which phrenologists reason on the nature of Deity and divine things; and, at the same time, the best *philosophical* arguments by which the most “*abominable atheism*” can be refuted! His article is concluded in these emphatic words. “This faculty (*causality*), therefore, is silent as to the cause of the Creator of man, and cannot tell whether he is self-existent, or called into being by some higher power; but thus far it can go, and it draws its conclusions unhesitatingly, that *HE must exist, and must possess the attributes* which it perceives manifested in his works; and, these points being certain, it declares that *HE is God to us*; that *HE is our creator and preserver*; that all his qualities, so far as it can discover, merit our profoundest reverence and admiration; and that, therefore, *HE is to man the highest and most legitimate object of veneration and worship.*”

III. MODES OF ACTIVITY OF THE FACULTIES.—All the faculties, when active in a due degree, produce actions good, proper or necessary; excess only of activity occasions abuses. The mere smallness of its organ is not the cause of a particular faculty’s giving rise to bad practices; but it may lead to indifference, apathy, or the omission of duty, by leaving another faculty without proper restraint. When in action, from whatever cause, every faculty determines the kind of feeling, or forms the kind of ideas, that result from its natural constitution.

The *propensities and sentiments* cannot be excited to activity by a mere act of the will: thus, by merely willing to experience them, we cannot conjure up the emotions of fear, compassion, veneration: they may enter into action, however, from an internal excitement of the organs, and then the desire or emotion which each produces is experienced whether we will to experience it or not. There are times, as every one must have felt, when involuntary emotions arise within us, for which we cannot account; and such feelings depend on the internal activity of the organs of such sentiments. These faculties, moreover, may be called into activity independently of the will, by the presentment of the external objects naturally destined to excite them; thus, impending

danger excites cautiousness and gives an instantaneous emotion of fear ; and the contemplation of stupendous objects in nature prompts ideality, and inspires the mind with a feeling of sublimity. In all similar cases, the power of acting, or of not acting, is completely dependent on the will ; but the power of feeling, or of not feeling, is not so,—it is perfectly instinctive. This doctrine affords a ready explanation of the unaccountable pleasure, as Hume called it, which the spectators of a good tragedy receive from sorrow, terror, anxiety, and other passions that are in themselves disagreeable and uneasy : it also unfolds the reasons why they are pleased in proportion as they are afflicted, and never feel so happy as when they employ tears, sobs and cries, to give vent to their sorrow, and relieve their breasts, swollen with the tenderest sympathy and compassion. Each propensity and sentiment, then, may be called into activity by presentment of its object ; and, when active, the corresponding feeling or emotion attends it, in virtue of its constitution.

Happiness consists in the harmonious gratification of all the faculties ; and the very essence of gratification is activity. Thus, the muscular system is gratified by motion, the eye by looking at external objects, and hence pleasure arises. So it is with the propensities ; *combuliveness* is delighted by overcoming opposition, *destructiveness* by the sight of extinction and the infliction of pain : and with the sentiments ; *benevolence* rejoices in the relief of suffering, *hope* in looking forward to a happy futurity, and *cautiousness* in a certain degree of doubtfulness and anxiety. As, therefore, the *degree* of enjoyment corresponds to the *number* of faculties *simultaneously* active and gratified, it follows, that a tragic scene which affords direct excitement to several of the faculties at the same moment, *must be agreeable*, whatever these faculties may be ; provided, 1st. It does not, at the same time, outrage any of the other feelings, and 2d. That it does not excite any faculty so intensely as to give rise to pain ; just as too much light hurts the eyes, and too much exertion fatigues the muscles. We are to remember, however, that all such internal emotions take place simply in consequence of the constitution of the faculties, and the relation established by nature betwixt them and their objects, without the *understanding* requiring to be imposed upon, or to form any theory, whether the scenes be real or fictitious. If the propensities and sentiments become excessively active from these representations, they may overpower the intellect, and then a temporary belief of their reality will follow and the feelings be the stronger ; but, in this case, the strong emotion does not arise *from a previous illusion of the understanding*, but the misconception is the *consequence*, and not the cause of the feelings having become overwhelming. Our readers will find advantage in rightly comprehending this law of our constitution, as it accounts very satisfactorily for several of the phenomena of insanity : thus, for instance, if the organs of *combuliveness* and *destructiveness* be violently and involuntarily active through disease, madness or fury will ensue : if those of *cautiousness* become morbidly and permanently active, fear will constantly be felt, and this constitutes melancholy : if *veneration* and *hope* be excited in a similar way,

the result will be involuntary emotions of devotion, and the liveliest joy and anticipations of bliss, leading when fixed and immoveable to religious insanity. Not unfrequently, a person is insane on a single feeling alone, as hope or veneration; and then, if the false impression which this altered feeling produces, is admitted as correct, the deductions of the mind from it, as well as the general conduct of the patient, are rational and consistent: thus, says our intelligent author, p. 374, a person insane in self-esteem sometimes imagines himself a king: grant this to be the case, and he speaks and acts as becomes a king, and shews considerable tact and consecutiveness of judgment; this proceeds entirely from the organs of intellect remaining sound, and that of self-esteem having become diseased. In such cases, the most eloquent arguments addressed to the understanding, as a means of removing the disease, must necessarily prove unavailing; for the malady consists in an *unhealthy action of the organ* of a sentiment, and so long as the disease lasts the insane feeling will remain: it will be cured by a speech when the gout yields to a good story.

Nevertheless, the propensities and sentiments may be excited to activity, or repressed, *indirectly*, by an effort of the will: thus, the knowing and reflecting faculties form ideas; now, if these be employed to conceive internally the objects fitted by nature to excite the propensities and sentiments, the latter will acquire activity in the same manner, but not in so powerful a degree, as if their appropriate objects were externally present, and the vivacity of the feeling will be in proportion to the strength of the conception and the energy of these mental powers. If, for example, we conceive inwardly an object in distress, and benevolence be powerful, compassion will be felt and tears will sometimes flow from the emotion produced: if, in like manner, we wish to repress the activity of ideality, we cannot do so by willing that the sentiment be quiet; but, by conceiving objects naturally adapted to raise other sentiments, as veneration, fear, pride, or benevolence, these faculties will then be excited and ideality will sink into inactivity. Hence it is, that he who has any propensity or sentiment predominantly active from internal excitement of its organ, will have his intellect filled with conceptions fitted to gratify it: in other words, the habitual subjects of thought in the mind are determined by the faculties which are predominantly active from *internal* excitement. These principles, from their explaining at once the great variety of tastes and dispositions among mankind, should be particularly attended to in the applications of medical as well as moral philosophy; for, in no two individuals, is exactly the same combination of organs to be found, and hence every one is inspired with feelings in some degree peculiar to himself, and desires objects fitted for their especial gratification. As the propensities and sentiments, in fine, do not form ideas, and as it is impossible to excite or recall the feelings or emotions produced by them, *directly* by an act of the will, it follows, says Mr. C. that these faculties have not the *attributes* of perception, conception, memory, and imagination. They have the attribute of *sensation alone*, i. e. when they are active, a sensation or emotion is expe-

rienced: hence, sensation is an accompaniment of the activity of all the faculties, and of the nervous system in general; but sensation is no faculty in itself,—it is purely an attribute or characteristic disposition.

The *knowing* and *reflecting* are subject to laws different from those of the *propensitive* and *sentimental* faculties: they form ideas and perceive relations; are obedient to the will or rather constitute will themselves; and they minister to the gratification of the other faculties which only feel. They may be active, also, from internal excitement, and then the kinds of ideas which they are fitted to form are presented involuntarily to the mind: thus, the man in whom causality is powerful and active, reasons while he thinks without an effort; and he, in whom wit is energetic, feels witty conceptions flowing into his mind spontaneously, and even at times and places when he would wish them not to appear. Another modification of excitement may be communicated to these faculties by the presentation of the external objects fitted to call them into activity; and another is desirable from an act of volition. At this stage of his labours, Mr. Combe is led to consider the important doctrines of perception, conception, spectral illusions, dreaming, imagination, memory, judgment, consciousness, attention, association, passion, pleasure and pain, joy and grief, sympathy, habit, and taste. We feel vexation in being obliged to confine ourselves to Mr. Combe's definitions; but we can assure our readers that they will find his discussions in illustration of these mental states, to be as instructive as they are excellent.

1st. Perception. This is a simple act of the mind by which, on the presentation of external objects, these objects are known *to have existence*: it constitutes the *lowest degree of activity* of the knowing and reflecting faculties; and, if no idea is formed when the object is presented, the observer is destitute of the power of manifesting the faculty whose function is to perceive objects of that kind: it constitutes a *mode of action* of these faculties, but is not a separate faculty itself.

2nd. Conception. When the knowing and reflecting organs are powerfully active from internal excitement, whether by the will or by natural activity, then ideas are vividly and rapidly formed, and the act of forming them is styled *conception*: if this act be executed with a very high degree of vivacity, it is called *imagination*; but each faculty performs the act of conception in its own sphere. When, moreover, any of these organs is internally active, the mind conceives, or is presented with ideas of, the objects which it is fitted to perceive: but, if this internal activity become morbid, through disease of the organs, these ideas become fixed and remain involuntarily in the mind, and thus give rise to insanity.

3d. Spectral Illusions. If several of these last organs become active through internal excitement, they produce involuntary conceptions of outward objects invested in all the attributes which usually distinguish

reality. The organs of the knowing faculties, and that of wonder, seem to Mr. C. to be the chief seats of these diseased perceptions; and this, he thinks, appears obvious from the descriptions of the illusions themselves: in demonstration of this view, he adduces a very remarkable history from the *Phrenological Journal* which, as well as the concluding part of this section, we entreat our metaphysical physicians to peruse with candour, and to examine with that degree of attention a question so momentous evidently demands.

4th. Dreaming. If, says our author, the greater number of the organs remain inactive, buried in sleep, and two or three, from some internal excitement confined to themselves, become active, these excited organs will present the mind with corresponding conceptions: and, being separated in their action from the other organs, which, in the waking state, generally co-operate with them, the result will be the creation of disjointed and fantastic impressions of objects, circumstances, and events; in short, he adds, all the various phenomena of dreaming. Hence, every thing that disturbs the organization of the body may become the cause of dreams; a heavy supper, by encumbering the digestive powers, affects the brain by sympathy and thus originates the spectres dire which then assail the sleeping fancy: fever, too, by keeping up a morbid excitement in the whole system, sustains the brain in a state of uninterrupted activity, and thereby prolongs the sleeplessness which attends the higher, and the disturbed dreams that accompany the lower, degrees of that disease. In the same way, another familiar fact relative to the mind may be explained,—if, when awake, we have been excessively engaged in any particular train of study, it haunts us in our dreams. During the day, the organs of the faculties chiefly employed, were maintained in a state of action, intense and sustained in proportion to the mental application: by a general law of the constitution, however, excessive action does not subside suddenly, but abates by insensible degrees: hence, on going to sleep, so much activity continues to stimulate the organ, that the train of ideas goes on till, after long action, it at last entirely subsides. Mr. Combe finds that dreams in different individuals have most frequently relation to the faculties whose organs are largest in the brain; and he presumes, but does not state it as a fact, that persons in whom cautiousness is small and hope and benevolence large, will, when in health, enjoy brilliant and happy dreams; while others, in whom cautiousness is very large and hope small, will be wading in difficulties and woe: this new doctrine will not be lost, we presume, on the enlightened medical inquirer. Some years ago, Mr. A. Carmichael of Dublin suggested the idea that sleep may be the occasion when the waste of substance in the brain is repaired by the deposition of new particles of matter. There is no direct evidence of the truth of this conjecture; but the brain, like every other part of the animal structure, is furnished with sanguineous, and discerning, and absorbing vessels; and, like them also, is exposed to the influences of excessive deposition or absorption. That its waste should be repaired;

therefore, is a fact of necessary inference ; and, that the period of sleep, when the mental functions are suspended, would be particularly suitable to this operation, is also matter of very plausible conjecture ; but, here the matter must rest, till farther observation and facts enable us to advance towards a more certain philosophy.

5th. Imagination. Conception is the cool and methodical representation of things absent to one's self or to others : imagination is the *impassioned representation* of the same things, and not merely in the forms and arrangements of nature, but in new combinations formed by the mind itself : thus, perception may be viewed as the *first* or lowest, conception as the *second*, and imagination as the *third* degree of activity of the knowing and reflecting faculties. In other words, it is just intense, glowing, forcible conceptions proceeding from a great activity of the intellectual powers, and these conceptions not confined to real circumstances, but embracing as many new combinations as the faculties are capable of commanding.—Mr. C. concludes this sketch with an ingenious disquisition on the meaning of the indefinable word “Fancy,” to which we must only advert, and proceed.

6th. Memory. As the mind has no power of calling up, into fresh existence, the emotions experienced by means of the propensities and sentiments, by merely willing them to be felt phrenologists therefore, hold the doctrine, that *memory is not possessed by these faculties*. The ideas formed by the knowing and reflecting faculties, however, can be recalled by an act of recollection, and they are, therefore, said to have *memory* : memory, consequently, is nothing else than a mode of activity of the knowing and reflecting organs. In conception and imagination, which also result from internal activity, *entirely new* combinations of ideas are formed ; and the ideas themselves are recalled, not only without regard to the time or order in which they had previously existed, but even without any direct reference to their having at all existed before. Memory, on the other hand, implies a new conception of impressions previously received, attended with the idea of past time and consciousness of their former existence ; and this new conception follows the order of the events as they happened in nature. Each organ, in fine, enables the mind to recall the impressions which it served at first to receive ; and, hence, there may be as many *kinds of memory* as there are *knowing and reflecting organs*. The doctrine, moreover, that memory is only a degree of activity of the organs, is illustrated by the phenomena of diseases which particularly excite the brain : hence, occasionally, under the influence of disease, the most lively recollection of things will take place, which had entirely escaped from the memory in a state of health. Mr. Combe exemplifies this by a remarkable pathological history, in the examination of which, we doubt not, our readers will be actuated entirely by the spirit of patient inquiry after truth.

7th. Judgment. This is the perception of relation, or of fitness, or

of the connexion betwixt means and an end, and belongs solely to the *reflecting* powers: these have perception, imagination, and memory, as well as the *knowing* faculties; but judgment is the decision or inference of the *reflecting* faculties upon the *feelings* induced by the propensities and sentiments, and upon the *ideas* furnished by the knowing faculties. To judge of the proper line of conduct to be followed in the affairs of life, therefore, it is necessary to *feel* correctly as well as to reason deeply; or rather, it is *more* necessary to feel rightly than to reflect: hence, if an individual possess very powerful reflecting faculties and, at the same time, be deficient in conscientiousness, he is like a fine ship wanting a helm, liable to be carried from her course by every wind and current. Mr. C. draws an apt illustration of this doctrine from the character and actions of Lord Bacon, and shews, by example, the results of neglecting its principles in the affairs of ordinary life, and especially in that important regulation which requires the *unanimity* of juries in the trial of civil causes: a proposition, he concludes, to which nine men out of twelve would *voluntarily* assent, would be nearer truth than one modified by mutual concessions to conciliate, *but not to satisfy*, the whole.

8th. Consciousness. This means the knowledge which the mind has of its own operations, but gives no intimation of the existence of its organs: it reveals to us only the operations of our own minds, leaving us entirely in the dark regarding the mental affections of others, where they differ from our own. Hence, by reflecting on consciousness as the means of studying the mind, we can discover nothing concerning the organs by which the faculties act, and run great danger of forming erroneous views of human nature, by supposing mankind in *general constituted exactly like ourselves*.—Under this head, Mr. C. introduces a case of what is called a *divided consciousness or double personality*—exhibiting in some measure two separate and independent trains of thought and two independent mental capabilities, in the same person: it involves several most curious philosophical questions, which Mr. Combe, with his usual candour, professes his inability phrenologically to explain: it is an account of *diseased* manifestations which, of course, are contrary to nature, and, by consequence, do not come under the cognizance of phrenology, as this professes to be nothing more than the faithful interpreter of Nature's laws.

9th. Attention. This is not a *faculty* of the mind, but consists merely in the application of the knowing or reflecting faculties to their objects: it is, indeed, a mere *act* of the different intellectual powers, and not the *attribute* of any *particular* power, established exclusively for its production.

10th. Association. Mr. Combe affirms that the metaphysicians have erred, and must ever err, in endeavouring, by reflecting on their own consciousness, to discover universal laws, by which the succession of

ideas in mankind in general will be regulated. They imagine our thoughts to follow each other, in an established order of succession; and, in their peculiar way, have attempted to find out the circumstances which determine the order and the causes, in virtue of which one idea introduces another into the mind. Our author, however, demonstrates the fallacy of this position, by shewing, as an illustration, the impossibility of ascertaining the laws that regulate the succession of notes emitted by an *Æolian* harp, and of controlling the ever-varying actions of the inconstant air, which form the causes producing the notes. Ideas, he says, are affections of the human faculties, just as notes are affections of the strings of the harp; and they arise from impressions on the various powers of the mind; but there is as little regularity in the order in which they are received, as in the breathing of the air on the strings of the harp: if harps, then, may vary in structure, human beings do positively differ in the relative strength of their faculties, so that one possesses several strong, which in another are weak; or, in one, all the powers are active, and in another sluggish. Hence, the same impression must produce very different effects, or introduce very different ideas into minds dissimilarly constituted: how then, Mr. C. asks, amid such a countless variety of causes, can similarity of effects be expected? His illustrations of this abstruse doctrine are beautifully appropriate; but we cannot do more than stay to solicit an impartial examination of his philosophy. In conclusion, he says, in studying the laws of association we must go beyond the ideas themselves, and consider the faculties which form them: thus, we shall find the individual who has the *reflecting* faculties most powerful, associating ideas according to the relation of necessary consequence; we shall find him who has the *knowing* faculties most powerful, associating ideas according to the relations of time, place and circumstances; and, in every case, we shall find each individual associating those ideas with most facility, and recollecting those ideas most perfectly, which minister to the gratification of his most powerful propensities and sentiments. He gives this illustrative example: if we place a number of persons on a hill-top, Arthur's seat, for instance, overlooking a picturesque country and the sea, and bid each declare his thoughts;—we shall find that one, with ideality predominant, will think of the magnificence of Nature, the boundless extent of the ocean, the vastness of the mountains; and, on recalling the scene, these ideas and emotions will be associated with it in his mind:—another, with great causality and constructiveness, and little ideality, will admire the skill which he sees displayed in laying out the fields, and in constructing the houses and the ships:—one, with benevolence large, will think of the happiness enjoyed by the people who inhabit the plain:—another, with acquisitiveness active, will think how the various branches of industry will pay:—and one, with a strong veneration, will probably take occasion to admire the greatness and goodness of God. Now, each of these individuals, on the mention of the hill, shall afterwards experience a train of ideas corresponding to the first impressions which he received on the top, and nothing can be

more dissimilar than these: as well, therefore, may we expect, by studying the forms and lines of the clouds that flit along the sky to-day, to be able to discover laws by which their succession shall be regulated to-morrow; as, by reflecting on the ideas that pass in one mind, to discover links of association by which ideas in the minds of mankind in general will be uniformly connected and introduced in a determinate succession.

11th. *Passion* is the highest degree of activity of every faculty; and the passions are as different as the faculties. There can be no such thing as *factitious* passions: man cannot alter his nature; and every object he can desire must be desired in consequence of its tending to gratify some natural faculty: this doctrine should be exceedingly available in the applications of medicine.

12th. *Pleasure* and *Pain* are affections of every faculty: they are the result, not the cause, of the particular faculties. Every faculty, when indulged in its natural action, feels pleasure; when disagreeably affected, feels pain: thus, one person delights in pardoning offences, another in taking revenge.

13th. *Joy* and *Grief*. Each propensity desires to attain its object, and this attainment affords to the mind a feeling of gratification: thus acquisitiveness desires wealth, and the obtaining of wealth gratifies the propensity: this is attended with pleasing emotions, and these emotions constitute joy: again, the losing of wealth deprives the propensity of its natural object; this, therefore, is accompanied with painful sensations, and these make up grief.

14th. *Sympathy* is defined to be a fellow-feeling in one person, with emotions experienced by another; and, in a very philosophical sketch contributed to the author by his brother Dr. A. Combe, the laws which regulate the activity of the mental faculties in sustaining this affection, and the circumstances most favourable to its occurrence, are explained with great conciseness and perspicuity. The doctrine of sympathy leads to many important practical results: the generous mind will retrace Dr. C.'s exposition of it with advantage and delight.

15th. *Habit*. Every voluntary action is a manifestation of some one or more faculties of the mind: now, before this action can be done, the faculty on which it depends must be possessed; and, the stronger the faculty, the greater will be the facility with which the individual will do the thing at first, and with which he will learn to repeat the doing of it. Habit is the power of performing such voluntary action, readily and easily; and this power is acquired or improved by frequent doing the voluntary action: thus, before the habit of practising particular branches of art and science can be acquired, the organs on which they depend must be largely possessed; and, being so, the habit

results spontaneously from exercising the powers. Exercise enable the organs to act with greater facility ; and, it is in this way, that the *real* effects of habit on the mind, which are important, can be explained ; but still the organ must possess a certain, and even a considerable degree of natural power and activity, to render it susceptible of the exercise by which habit is formed.

16th. Taste. Every act of the mind must be a manifestation of some faculty or other ; and every act must be characterised either by good or bad taste, or be wholly indifferent in this respect : an inquiry into the origin of bad taste, will lead us to distinguish its opposite, or correct taste. Bad taste, then, appears to arise from an excessive or inappropriate manifestation of any of the faculties : those poets, for instance, are guilty of very bad taste in the passages of their writings where they exhibit the passion of love in all the grossness of an animal feeling. Faults in taste, however, proceed not only from unbecoming manifestations of the lower propensities, but also from an inordinate expression of the sentiments and intellectual faculties : thus, when abused, ideality itself, which is undoubtedly the fountain-head of beauty, may degenerate into bombast, rant, exaggeration, and the wild extravagances of drunken sublimity. Excess of vanity and the tendency to engross conversation, proceeds from over-active love of approbation and self-esteem : the disposition to wrangle, dispute, and contradict, springs from an excessive manifestation of combativeness : and, from an improper exercise of secretiveness and love of approbation, arises the practice of flattering, and uttering a profusion of agreeable things to persons whom we do not esteem, but wish to please. On the other hand, the most exquisite mental manifestations are those which proceed from a favourable combination of the whole faculties, and in which each contributes a share of its own good qualities, and is restrained by the others from running into excess or abuse. Good taste, therefore, in being the result of the harmonious action of the faculties, is susceptible of great improvement by cultivation. An author, says Mr. Combe, will frequently reason as profoundly, or soar as loftily, in his first essay, as after practice in writing for twenty years ; but he rarely manifests the same tact at the outset as he attains by subsequent study and the admonitions of a discriminating criticism. This is the case, because reasoning depends on causality and comparison, and lofty flights on ideality ; and, if these faculties be eminently possessed, they execute their functions intuitively, and carry the author forward, from the first, on a bold and powerful wing : but, as taste depends on the adjusting, the suppressing and elevating, the ordering and arranging, of our thoughts, feelings and emotions, so as to produce a general harmony in the manifestations, it is only practice, reflection, and comparison with higher standards, that can enable us successfully to approximate to excellence ; and even this can be gained only when the organs are by nature equally combined ; for, if the balance preponderate greatly in any particular direction, no effort will produce an exquisite taste.

Mr. Combe next gives the doctrine of the *effects of size in the organs on the manifestations of the faculties*.—Size in the organs, it has been stated already, is, *cæteris paribus*, the measure of power in the faculties: as size, therefore, is an indispensable requisite to power in the mind, no instance ought to occur of an individual who, with a small brain, has manifested clearly and unequivocally great force of character, animal, moral and intellectual:—*general* size, however, cannot be the indication of *particular* power; we must always look for the *power* in the *direction* of the size: the union of *size* and *activity* in an individual, as Homer and Shakespeare, constitutes the perfection of genius.

Next in order is the section on *combinations in size, or the effects of the organs, when combined in different relative proportions*, with rules for estimating the effects of differences in relative size, occurring in the organs of the same brain; and appropriate practical illustrations which, however, our limits oblige us to pass. These are the rules.

Rule 1st. Every faculty desires gratification with a *degree of energy* proportionate to the *size* of its organ; and those faculties will be habitually indulged, the organs of which are largest in the individual.

Rule 2d. As there are three kinds of faculties, animal, moral and intellectual, which are not homogeneous in their nature, it may happen that several large animal organs are combined in the same individual, with several moral and intellectual organs highly developed: the rule then will be, that the lower propensities will take their *direction* from the higher powers; and such a course of action will be habitually followed as will be calculated to gratify *the whole faculties whose organs are large*.—The examples given in illustration of this rule are truly and profoundly philosophical.

Rule 3d. Where all the organs appear in nearly equal proportions, the individual, if left to himself, will exhibit opposite bearings of character, according as the animal propensities or moral sentiments predominate for the time: he will pass his time in alternate sinning and repenting. If external influence is brought to operate upon him, his conduct will be greatly modified by it: if placed, for instance, under severe discipline and moral restraint, these will cast the balance, for the time, in favour of the higher sentiments; if exposed to the solicitations of profligate associates, the animal propensities will probably obtain triumphant sway.

Combinations in Activity. Where several organs are large in the same person, they have a natural tendency to combine in activity and to prompt him to a line of conduct calculated to gratify them all: where, however, all or the greater part of the organs are possessed in nearly equal proportions, important practical effects may be produced, by establishing combinations in activity among particular organs or groups of

organs. It is in virtue of this principle that education produces its most important results, occasioning the practical conduct of individuals to be very different, in consequence of the difference of their training. In viewing the heads of the higher and lower classes of society, we do not perceive the animal organs preponderating in point of size in the latter, and those of the moral sentiments in the former, in any very palpable degree: the high polish, therefore, which characterises the upper ranks, is the result of sustained harmony in the action of the different faculties, and especially in those of the moral sentiments, induced by long cultivation: the rudeness observed in some of the lower orders proceeds from a predominating combination in activity among the lower propensities; and the awkwardness that frequently characterises them, arises from the propensities, sentiments and intellect not being habituated to act together. If, however, an individual is very deficient in the higher organs, he will remain vulgar, in consequence of this defect, although born and educated in the best society, and in spite of every effort to communicate refinement by training; while, on the other hand, if a very favourable development of the organs of the higher sentiments and intellect is possessed, the person, in whatever rank he moves, will have the stamp of Nature's nobility.—The student who attends to the doctrine of the primitive faculties and their combinations, will perceive the reasons why phrenology does not enable us to predict actions.

Our author's next section is long, and treats of a subject possessing the highest degree of importance: it is titled, "*On the coincidence between the natural talents and dispositions of nations, and the development of their brains.*" We cannot do it justice in the limited sketch to which we must confine ourselves in this article; and shall therefore, state merely one of Mr. Combe's incontrovertible conclusions, viz. that national character, instead of being modified by climate, religious and political institutions, and other external circumstances, is absolutely dependent on particular innate dispositions and talents concomitant invariably with a particular conformation of brain. Those, he says, who contend that institutions come first, and that character follows as their effect, are bound to assign a cause for the institutions themselves: if these do not spring from the native mind, and are not forced on the people by conquest, it is difficult to see whence they can originate.

Equally important and beautiful are the doctrines inculcated by Mr. Combe in his chapter intitled, "*On the harmony of the mental faculties with each other, and with the laws of physical nature.*" In this, he shews to a demonstration, that the dictates of each of the faculties proper to man are in harmony with the dictates of all the others; and that the Creator has established such relations between the human mind and the external world, that happiness, benefit, or advantage, is the natural result of actions approved by the moral sentiments and intellect; and evil or suffering the natural consequence of all manifestations of the lower propensities in opposition to the dictates of the higher powers. So proper, indeed, and so determinate is this harmony, that it is possible, in general, to gratify the whole faculties, without abusing any, and thus

the result of such gratification will be satisfaction and real enjoyment, highly favourable at the same time to morality and religion. To be able to find out the line of conduct calculated to lead to this result, each individual must know, 1st. The nature of his own faculties, their legitimate uses, and their abuses : 2d. The relations of these faculties among themselves : and 3d. Their relations to external beings and objects. Its extreme elegance of diction, but more particularly the profound penetration and practical wisdom displayed in its philosophy, will necessarily obtain for this section the reader's highest consideration.

On Insanity and Criminal Legislation. Future ages, says Mr. C. will be surprised when they learn that, in the 19th century, metaphysical professors in every college lectured upon the mental powers, and were listened to by attentive hearers ; but that, when the manifestations of mind became deranged, the knowledge of these persons was conceived to bear so small a relation to the case, that they were passed by, and a physician or surgeon, probably altogether unacquainted with metaphysics, had the disordered mind committed to his administration for a cure. If the philosophy of mind, in its sound state, were truly founded in nature, such a separation of theory from practice could not occur : the fundamental error originates in the neglect, by the metaphysicians, of the influence of the organization with which the mind is connected. They study the mind as if it were a disembodied spirit : but a spiritual essence cannot become diseased and be cured by medicine ; the organs alone are subject to malady ; and hence, whenever the action of these corporeal instruments becomes deranged and unusual manifestations occur, a new element as it were starts into play, not known or admitted in the metaphysical systems, and their whole rules, principles and theories become inapplicable. The phrenologist, on the other hand, studies the mental powers in connexion with the organization : he ascertains the healthy functions of the faculties and organs ; and, when they become diseased, the phenomena appear to him natural and easy to be accounted for.

With some, it has been the practice to treat madness, or fury, by bleeding and general depletion ; and cases of melancholy by administering bark, wine, and other tonics and stimulants : now, the phrenologist would be led to suspect that the *cause* of both these diseases may frequently be the same, or that inflammatory action, affecting the *organs* of combativeness and destructiveness, may produce the symptoms denominated fury ; and that some cause affecting the *organs* of cautiousness, conscientiousness, and veneration, may give rise to the symptoms designated melancholy. It is obvious, of course, that all remedies ought to have reference to the *cause* of the disease, and not vary merely on account of the symptoms : it would, therefore, be preposterous to treat the affection of the one set of organs by depletion and that of the other by tonics. A correct knowledge of phrenology will be of some service in preventing the physician from mistaking *difference of symptoms*, arising from the same cause, attacking different

parts of the brain, for actual difference of disease ; and it will tend to introduce system and consistency into his administration of remedies. Diseases of the organs of the mind differ from affections of other organs in this, that they are susceptible of great alleviation from moral treatment. The basis of a rational moral treatment must be to avoid every circumstance and idea that can by any possibility irritate and excite the diseased feeling or intellectual faculty : now, the physician, who knows the boundaries of each faculty when in health, its range of objects and interests, and who discriminates correctly the precise powers impaired, must obviously have it in his power to avert all prejudicial influences from the patient, much more than he who possesses either no knowledge, or an imperfect knowledge founded only on vague conjectures, concerning the faculties in health ; who does not believe in the existence of separate organs and powers ; and who has neither theory nor principle, in regard to the mind, on which he can ground his proceedings. The physician, however, who is acquainted with the true science of mind, and possesses sufficient mental tact to avail himself of its aid, will be able to discover the range of his patient's desires and aversions, and of his intellectual strength and weakness ; and, what is of no mean importance, be able to satisfy the patient that he understands his disease.

As we intend returning to an enlarged consideration of this subject, in a review of Dr. Spurzheim's work on insanity, we shall satisfy ourselves, for the present, with upholding the doctrines promulgated in this section of Mr. Combe's to the reader's gravest attention : they are of vital importance to every medical inquirer.—We would just add the following notes and pass on. From a profound knowledge of the question, he states, that a large and active brain, well developed in the moral and intellectual regions, is indispensable in the person himself who undertakes the practical direction of the insane, to enable him to apply the principles of phrenology to their full account ; for it is undeniable, he adds, that many men of respectable attainments possess no tact for treating diseased feelings, sentiments, and intellectual powers, even although the constitution of their organs were known to them as matters of science, and besides, they possess no mental resources to enable them to call forth and support in action the faculties of their patients, by the exercise of their own. The resident director of an asylum, he proceeds to say, ought to be a man of genius, largely endowed by nature with the propensities, sentiments, and intellectual powers in his own mind ; and, moreover, well instructed in medicine, phrenology, and the collateral branches of knowledge. Such a person would possess all the chords of mind powerful in himself, and could touch all the varieties of them in his patients : he would enjoy that force of character and buoyancy of spirit which have immense influence in calling out latent energies, and even in soothing irritated feelings.—Physicians, in judging of insanity, ought never to lose sight of the important fact, first revealed by phrenology, that the organs of some faculties and, consequently, their manifestations, may be diseased or deficient, while others remain entire : this of itself removes every difficulty.

Objections to Phrenology. Under this head, Mr. Combe examines the objections so frequently, and we may add, so senselessly, urged against his favourite science,—*that which accuses it of leading to materialism; and that which rests on the alleged fact of the brain having, in various instances, been wounded or destroyed in whole or in part, without in any degree impeding the usual operations of mind.* The last of these questions is investigated in an elaborate paper furnished to the “System” by Dr. A. Combe, who succeeds completely in removing the objection: his reasonings to us seem unanswerable, and unfold views which the physician can apply to the best purposes: the essay altogether is satisfactory and excellent. As, however, we took a pretty comprehensive view of his arguments, in a former number of our Journal, our reverting here to the subject will not be expected. In regard to the shallow and unphilosophical statement, that phrenology leads to “materialism, fatalism, and the most abominable atheism,” it has been so often refuted that we should have supposed nothing but the most childish obstinacy could have advanced it as an anti-phrenological argument, had we not of late discovered that Sir William Hamilton of Edinburgh, who is a superb scholar and a sublime gentleman, has satisfied the Royal Society of the Scotch Metropolis that the objection is founded on truth, and of course susceptible of establishment beyond all contradiction. As Sir William is pledged to publish, for the benefit of misguided philosophers, the exquisite Essay in which this high object is attained, we shall expect with anxiety and desire, the full completion of his philanthropic designs; and, in the mean time, we would suggest, in anticipation of his glory, that the phrenologists, as an atonement for their insolence and stupidity, should prepare themselves to erect a monument on Arthur’s Seat, representing a wrestling-match, in which the “doughty” Baronet, as a Titan, overcomes and “crushes” a Pigmy.

In passing, we recognise the aptness of the five articles which constitute the appendix to Mr. Combe’s system, and proceed to give a summary view of the more important questions in the science of mind that may be considered as being established by phrenology, with the object of showing more impressively the advantages it seems destined one day to confer on mankind: it demonstrates, then,

1st. That the brain is an aggregate of organs, and, as an organic system, constitutes exclusively the organ of the mind.

2d. That the mind possesses a number of distinct innate faculties, each of which is dependent on a particular material organ in the brain for its manifestation; the power of each faculty’s manifestation being, *ceteris paribus*, in proportion to the size of its cerebral organ.

3d. That these faculties and their corresponding organs are divided into three great classes,—propensities, sentiments, and intellect, between which faculties themselves, and between them and the external world, God has established the most perfect harmony of relation.

4th. That *faculties*, and not *ideās*, are innate, or implanted by Nature.

5th. That attention, perception, memory, and imagination, are not primitive faculties of the mind, but only modes of activity of all or any of the intellectual faculties; mere acts of the mental powers.

6th. That there is an infinite variety among individuals in their respective endowment of the primitive faculties: hence the differences among men are original and innate.

7th. That these original differences descend, by the laws of propagation, from parents to children; and that it is upon this principle chiefly that national character depends,—feebleness of character being caused by the inheriting from nature a small brain, and energy of character from a large.

8th. That a distinctive character of the sexes consists particularly in the disposition of the propensities of amateness and philoprogenitiveness, and in general size of brain.

9th. That the essential distinction between man and the lower animals depends on his possession of peculiar organs of the sentiments and of the reflecting faculties.

10th. That man possesses a natural sentiment—*veneration*—leading him intuitively to the worship of a God.

11th. That man has an innate moral sense, depending chiefly, though not solely, on his sentiment of conscientiousness.

12th. That the existence of the faculties of adheiveness, acquisitiveness, secretiveness, love of approbation, benevolence, conscientiousness and intellect, proves that a state of society or civilization is *natural* to man.

13th. That we may determine, *à priori*, the education most suitable to be given to, and the professions best adapted for, different individuals.

14th. That insanity is, in every case, a bodily and not a mental malady; and that the seat of the disease is *exclusively* in the brain, or in some particular part of it: *let not prejudice deprive any physician of the immense advantages to be derived from a thorough knowledge of this principle.*

15th. That the cause of partial insanity proceeds from one or more organs becoming diseased, while every other organ, and particularly those of the intellectual faculties remain in a state of perfect sanity.

16th. That the causes of idiocy, partial or total, arise from the deficiency of size or structure in all, or any of the organs.

17th. That the phenomena of dreaming are dependent on the activity of *some only* of the organs, while profound sleep consists in the repose of *them all*.

18th. That the causes of the independence of nations are dependent chiefly on endowment of the higher sentiments, and not on particular forms of government,—free institutions being the effects, and not the causes of liberty.

Let these suffice, as a specimen of the phrenological principles.—Enough, we trust, has been said in this article to procure for Mr. C. and his philosophy, a fair and courteous hearing. We might have expatiated at great length on the utility of his science, in its applications to the purposes of education, legislation, political economy, criminal jurisprudence, history, legal and theological elocution, and above all to the

true philosophy of Medicine; but we have abstained from this indulgence, in the belief that the foretaste of an intellectual luxury we have provided for our readers will stimulate them to desire the enjoyments of a full repast.

We can dedicate but a very small space to the notice of Dr. Spurzheim's work, as it consists almost entirely of prints of distinguished characters, with historical notices of their lives, and some short remarks on their physiognomy, as evinced by the form and development of the brain rather than the face and features.

That the forms of things very frequently indicate the qualities, there can be little doubt—and that even in inanimate objects. There is a physiognomy of the heavens, as evinced by the clouds and skies—the husbandman judges of the soil by its aspect—and the healthy or diseased condition of plants is evinced by external signs. Again, the qualities of animals are often exhibited in their physiognomy. Celerity is visible in the configuration of the roe—sluggishness in the bear—innocence in the lamb—activity in the monkey. The physician speaks of the consumptive or apoplectic conformations of the body—and not only of general but of particular diseases by the countenance. “Finally,” says Dr. S. “the affective and intellectual characters of man, in the healthy and diseased states, are proclaimed by physiognomical signs.” In looking about us we distinguish, as by intuition, the benevolent, candid, and modest individual, from him who is cruel, artful, and haughty.

Some physiognomists have looked for the signs of men's dispositions over the whole body, while others search for them in particular parts of it only, as in the face and forehead. That it is not in the general figure of a human being we are to look for the dispositions of the mind, is abundantly evident. *Æsop* and *Socrates* are proofs that a fine form is not necessary to greatness of talent or generosity of soul. *Lavater* himself was obliged to admit that ungainly forms are sometimes combined with honesty of character—while individuals, beautiful and well proportioned, are occasionally deceitful. The physiognomical signs therefore of the affective and intellectual faculties, as innate dispositions, are only to be sought for in the size and organic constitution of the cerebral parts.

In illustration of this position, Dr. G. has given us a great many heads, chiefly copied from plates in the *Cabinet d'Estampes* of the Royal Library at Paris, the historical notices of the individual characters being taken from the best authorities. These portraits and characters certainly afford an instructive and entertaining elucidation, and perhaps confirmation of Dr. Spurzheim's views. We can only glance at a very few of them.

Emperor Caracalla. This, when examined on phrenological principles, is one of the most ignoble configurations of a head which it is possible to conceive. The basilar region contains a great mass of brain,

whilst the sincipital is very small and contracted. The head is low and wide, particularly above and behind the ears. The forehead is narrow, and by no means elevated. In short, the organs of the lowest propensities predominate over those of the moral and religious sentiments, and of the reflective faculties, which are all exceedingly defective. History has but too amply confirmed these phrenological views. Caracalla was fierce, haughty, hypocritical, licentious, selfish, implacable, detestably cruel. He wished to possess all the money of the empire. His understanding was limited, and he continued ignorant, in spite of all the care expended on his education. He lived amid debauchery himself, and punished it in others. He endeavoured to put his father to death—murdered his brother in the arms of his mother—and then prostrated himself before the images of the tutelary deities, averring that he had just escaped the treacherous attempts of him whom he assassinated!

Zeno, the Stoic. This portrait, from an antique bust, presents a cerebral organization which must excite the admiration of the phrenologist. The frontal and sincipital regions predominate greatly over those of the basis and occiput. The organs of benevolence, veneration, firmness, conscientiousness, ideality, and of the reflective faculties, are eminently large, whilst those of the animal feelings are subordinate. Such a brain is incompatible with grovelling and unworthy conceptions. It procains superiority in the moral character, and constitutes the sage. Zeno's character and intellectual dispositions exactly agreed with the indications furnished by his bust. He believed in one God, the soul of the world, and had great confidence in the instinct of Nature. His moral principles were severe in placing happiness in virtue, he insisted on the same bearing both in pleasure and pain—and contentment in every situation, both of adversity and prosperity.

These two sketches of the phrenological indications and historical characteristics of individuals, will give the reader some idea of the fund of interesting matter contained in this work of Dr. Spurzheim's.

There can be no doubt that the organs on which the dispositions of a man depend, must lie deeper than in the features of the countenance; and that the surest way of ascertaining these dispositions, is by examining the head. But we believe, that in the features of the face, and more especially in the expression of the countenance, we shall often find indications of mental faculties, and of what is passing within. Education, however, habit, and the situation of life in which we happen to be placed, greatly modify our original dispositions and propensities, and must ever tend to perplex the phrenological and physiognomical enquirer. The same difficulties, indeed, attend the physiologist and pathologist. How often do we find functions of organs modified by peculiarity of constitution or habits of life—how seldom do we see the same disease run parallel in two individuals, however similarly situated?—These considerations should induce us to look with a charitable eye on the imperfections and even the errors of phrenology and physiognomy.

X.

Novum Organum Medicorum; a New Medical Logic, or the Art of Thinking and Right Reasoning applied to Practical Medicine; exhibiting the Principles advanced in a larger Work under the same Title. By VINZENZO LANZA, M.D. Professor of Clinical Medicine in the Ospedale della Pace, at Naples. Translated from the Italian; By C. STORMONT, M.D. London; Samuel Highley, 174, Fleet Street, and Webb Street, St. Thomas's Hospital, 1826. Pp. 284.

[Concluded from page 149.]

UNDER the denomination of general morbid forms, our author first treats of inflammation—obstruction—and congestion, which, he says, are as similar in their phenomena as they are analogous in their nature.

Phenomenology. Swelling, redness, heat, and pain, are symptoms common to all these forms of disease, and their diverse combinations produce the distinctions of name and appearance. When the heat is ardent, the pain acute, the redness bright, and the swelling elastic, the affection is termed inflammation. When the swelling is great and firm, the heat slight, the redness obscure, and the pain dull, the affection is called obstruction. Congestion is a collection of humours in a part, producing a soft swelling with a dull pain, some heat and redness. There are intermediate forms of disease between these now described. For example, between inflammation and obstruction, there may be a swelling characterized by hardness and little heat, and which may be termed either a slow inflammation or a hot obstruction, as it inclines to the one or other of these distinct forms. A swelling that is very hot and rather soft may be called a hot congestion, inflammatory engorgement, or congestive inflammation. An obstruction may be humid or dry; in the former, the part is rather large than hard; in the latter, on the contrary, the hardness is more striking than the swelling, and in some cases of dry obstruction, the bulk of a part may be actually less than in the healthy state, while the hardness is very great. Congestions are also termed sanguineous, bilious, phlegmatic, &c. according as blood, bile, or lymph predominate in the afflux of humours.

The visible changes which occur in the structure of parts under these forms of disease, are an accumulation in the cellular tissue of the affected organ, of a fluid more dense than that thin lymph which naturally moistens the part in the healthy state. In inflammation, this humour coagulates; in obstruction, it becomes rather firm and dry; in congestion, it remains liquid, either white, yellow, or sanguinolent. In all these affections the vessels of the part and those adjacent are enlarged, the smaller vessels, which are not visible in the healthy state, are filled with blood and become visible; and, lastly, in the opinion of some authors, there spring up and become developed new vessels, which the organ did not originally possess. In inflammations, accompanied with fever, the

blood drawn from the veins is speedily replaced, it has little or no serum, and becomes covered with a whitish crust, sometimes of a yellowish or greenish hue.

As inflammation is acute when it possesses the true inflammatory characters, so it is of a chronic nature when it verges towards obstruction or congestion. In like manner a true obstruction is chronic, and in proportion as it deviates towards being acute, does it participate of the nature of inflammation and congestion. Congestion, when acute, participates of the nature of inflammation; when chronic, it inclines towards obstruction.

Inflammation, obstruction, and congestion, have most generally a continued course, but it is not uncommon, especially when they are elements of a periodical disease, for them to suffer periodically some increase and diminution.

Etiological Pathology. A disposition to inflammation, obstruction, and congestion, exists in the body, and may be said to consist in the whole body, or some particular organ or part of it, being slightly, and in an occult manner, predisposed; so that, on the application of any slight exciting cause, the disease is speedily developed.

Occasional Causes. Whether these be excitants or debilitants, whether the ordinary non-naturals in excess, or new agents, to which the body is not accustomed, whether, in producing irritation, they act by elevating too high, or depressing too low, the healthy vital actions; and whether they be naturally irritant or not, they are all capable of giving rise to the forms of disease in question. The longer and more violently they may have operated, the more readily and vigorously does the morbid form spring up, and still more so, if several causes of opposite natures have acted at the same time, or in rapid succession, as sudden alternations from heat to cold, from dampness to dryness, from motion to rest, &c. Upon any new and slight occasion, inflammation is liable to change into obstruction, congestion into inflammation, &c.

The proximate cause of these morbid forms, as long as they continue simple morbid *states*, consists in a mere change in the degree or impetus of the vital force: but, as soon as such morbid forms are established as *processes*, they consist in a change of mode of the vital action, which is invariably hyperstenic, whatever may have been the nature of the remote or exciting cause.

Brown considered morbid processes, as well as every thing else pertaining to life, as passive; and maintained that inflammation, obstruction, and congestion, were hyperstenic or hypostenic, according to the nature of their remote causes. Even the Brownonians, however, in what they term hypostenic inflammation, employ, under the name of excitants, the same resolvent remedies which the ancients, guided solely by experience, found advantageous. Our author's theory leads to the following practical maxim.

“All inflammations and obstructions are hyperstenic throughout the whole of their course; congestions, only when they exist as morbid states, may be

hyperstenic or hypostenic, according as they arise from excitant or debilitant causes: but, even when they arise from debilitant causes, if they be established as morbid processes, or if they be changed into inflammations or obstructions, they immediately become hyperstenic."

Thus cold, grief, want of exercise may produce an afflux upon the heart, the liver or the brain; and, while the causes remain, and no more than a simple congestive state is manifested, it is admitted to be hypostenic, and to require motion, heat, joy and other excitants; but, should the congestive process remain, after the causes have been removed, or, should there be manifested an acute or chronic inflammation or obstruction of the heart, liver or brain, the disease must have become hyperstenic, and requires to be combatted by the antiphlogistic regimen, deobstruent and resolvent remedies, without any excitants.

Boerhaave regarded the proximate causes of these morbid forms to consist in an obstruction of the minute vessels of an organ; for which reason he made use of the word *obstruction*, as a general term to express the essence of these three distinct morbid forms, in the same sense as the modern Italian schools use the word *phlogosis*. Although Boerhaave's idea was derived from mechanical rather than vital laws, he succeeded better in practice than physicians of more modern schools, inasmuch as the living process in these obstructions of vessels, was considered as altered in mode as well as in degree. The ancients, while they employed resolvent remedies, were careful to reduce the strength as little as possible, whilst the moderns, in the treatment of *phlogosis*, from considering the vital process to be only elevated in degree, are led to observe no measure in reducing the strength of the patient. Our author's hypothesis, from admitting the invariable hyperstenia of these morbid forms, has an advantage over the Brownian, and over the *contrastimulant* doctrines, because it admits the moderation of the ancients in the use of reductive agents, since the living processes are allowed to be changed in mode, as well as in degree; whence it is evident that health cannot be restored by the mere force of reductive measures carried to extremes.

The strength or degree of hyperstenia in inflammation, obstruction, and congestion, is to be estimated by the obstinacy or pertinacity as well as by the violence of the affection. A disease does not change its essence from being acute or chronic, and the more chronic and obstinate a disease is, the more are powerfully resolvent remedies indicated and easily borne. Surgeons of the present day make a distinction in cases of wounds between those in which adhesion is prevented by excess, and those in which it is prevented by defect of inflammation; and if a part be hot, tense, painful and elastic, the inflammation is said to be excessive, but if the part be much swelled, soft, or dry and hard, but not very hot nor discoloured, the inflammation is said to be defective, because it is slow. Our author contends that, in the slow inflammation, obstinacy makes up for the want of violence; that an obstructed state or congestion of the surface of a wound always shews the disease to be serious, and that the importance of a disease ought to be estimated, according to the obstacle which it opposes to the restoration of health. The true adhesive

inflammation is little entitled to be called inflammation, at least, its symptoms are always slight and transient, and every other inflammation whether acute or chronic, by which a wound may be attacked, must be hypersthenic.

The various species of inflammation differ from each other in mode, as well as in degree. Thus the true variolous pustule differs from the spurious, a phlegmon from erysipelas, erysipelas from carbuncle, carbuncle from a scirrhouid tumour, and this from an hæmorrhoidal congestion. In all of these diseases there exists hypersthenia, but the mode as well as degree of it differs in each.

The diagnosis of inflammations, obstructions, and congestions, are attended with difficulty when they are internally situated, and therefore not visible to the eye. It must rest upon the continued fixed pain, by which anatomy points out the part affected; upon its altered condition or consistency, if it be situated so as to admit of being felt with the hand through the external integuments; upon the state of its functions, which are liable to peculiar alterations in each disease of similar form; upon the fever; upon the alterations of colour and other sensible qualities; and, lastly, upon the absence of the signs of other diseases.

With respect to the prognosis, it is a general maxim in inflammation, obstruction, and congestion, as well as in other morbid forms, that when a due proportion is preserved between the constituent symptoms, redness, heat, pain and swelling, there is less danger than when any one of these symptoms greatly surpasses the rest in intensity. We have no room for extracting more of the author's observations on the diagnosis and prognosis of these affections. The following paragraph containing much of observation in few words seems, however, to deserve notice.

“ If we carefully observe how much the vital functions are affected by the intensity, and by the disproportion between the symptoms of a disease; how much the functions of the affected part are influenced; and to what degree this influence acts upon the whole frame; and hence, according to the second general rule of the prognosis, if we regard the physiological state of the patient, the occasional causes, and the proximate cause of the disease, the importance of the organ affected, &c. it will not be difficult to ascertain the nature, whether evil or innocent, of any disease consisting in inflammation, obstruction, or congestion.” 76.

In the second chapter of the second book, our author treats of fever, the theme of so many writers, and the stumbling-block of so many theorists; and of this affection, which, though so commonly the subject of daily observation, has divided the opinions of physicians in all ages, and in none, perhaps, more than the present, he gives a definition shorter, and, as it appears to us, more perfect, than any that has been attempted by preceding authors. It consists of two morbid characters only, namely, oppression in the exercise of the animal functions, and an augmented pulsation in the arteries, or an increased impetus in the exercise of the vital functions. If a man labours under both of these conditions, prostration of strength and augmented pulsation in the arteries, at one and the same time, he may be declared, without fear of mistake, to have fever. If, in some fevers, as the *algida* of Forst:

(which, we presume, to be the same as in this country is termed congestive fever,) the pulse appears less frequent than natural, yet it may be remarked, that its want of velocity is occasioned by the great oppression sustained, and also that it is still quicker than would appear proportionate to the extreme reduction of the powers of the body.

The particular symptoms of fever are arranged by our author into those of the *access*, those of the *height*, and those of the *decline*. In the access the pulse is oppressed, and in proportion to the degree of oppression, it becomes quick, while, in the same proportion, are increased also the prostration of muscular strength, the thirst, the scarcity of visible excretions, the dryness and lividness of the skin, of the mucous membranes, of ulcers, and of the nails, the shrinking of the soft parts, the loss of heat, the sense of cold, the shiverings and rigors. When a fever is at the *height* the pulse dilates, and in proportion as it becomes full, its velocity is diminished: nevertheless the prostration of strength, the thirst, the defect of visible excretions, and the dryness of the skin and mucous membranes continue, but the parts previously livid, now become red, and we have an increase instead of a reduction of temperature, and a sense of heat, instead of a sense of cold. In the *decline* the diminution and disappearance of the above-mentioned symptoms take place, and, in proportion to their disappearance, is the humidity of diseased surfaces, and the abundance and thickness of excretions. Fever, besides the prostration of strength, which constitutes its chief feature, always produces a physiological debility, and an extraordinary waste of the substance of the solids and fluids. By the Brownonians, the prostration of strength, which is one of the elements of the physiological debility proceeding from fever, is confounded with it; under the term hypostenia. By this error, all fevers must be regarded as hypostenic, as soon as the patient appears to be much oppressed and enfeebled.

“An error more gross than this,” observes our author, “certainly could not be made; because it is observed in every case, that no fever diminishes without the physiological debility being increased; and, in the convalescence, when the fever has disappeared, the weakness is greater than ever; whereas if Brown's view were correct, it ought to be quite the contrary.” 79.

Fever may have a continued or an intermittent course. If continued, it presents the phenomena of the access at its commencement; those of the height more or less severe, but continued during all the days that the disease runs; and those of the decline at the termination of this. If the fever has an intermittent course, it presents the phenomena of the access, height and decline, returning from time to time, for many times in the course of the disease. The aggregate of the phenomena of all the three stages is a febrile paroxysm, and those fevers which have only one united paroxysm, from the beginning to the termination of the disease, are called continued fevers; while those which have several separate paroxysms are termed remittents, when, in the decline, the fever abates, but does not terminate, and intermittents, when, at the end of the decline, the fever so far terminates, that, between an antecedent and subsequent paroxysm, there is some interval of time, during which the disease appears to have ceased.

Intermittent and remittent fevers are called periodical, when the paroxysms return regularly at certain periods. Our author remarks that the being periodical is not peculiar to fevers, and that other diseases possess occasionally that form.

Pathological Etiology. The strong resemblance that exists between fever and inflammation is remarked upon by our author, observing that those who are most prone to inflammation are also most readily affected with fever. The united power of these two affections causes the death of the majority of the human race. Any cause capable of exciting inflammation of a part may, by acting upon the whole body, produce a fever : and there is no cause capable of producing a fever, which, if its action be concentrated in one part, produces any other effect, than inflammation. Any fever may be a predisposing cause, an occasional cause, a symptom, or an effect, of any inflammation, whether simple, congestive, or obstructive ; and any inflammation may be a predisposing cause, an occasional cause, a symptom, or an effect, of any fever whatever.

Of the doctrine which assumes a diminution of the nervous energy to be the first element or proximate cause of fever, our author remarks, that this hypothesis has neither been logically maintained nor defended by its supporters, nor confuted by its opponents ; because, supposing the first element of fever to be a diminution of the nervous energy, it is incumbent in the supporters of this opinion to shew, in what such a condition of the nervous system consists. He, moreover, denies that the remission of fever, proceeds from *atassia* (an injury) of the nervous fluid, or from *adynamia* (loss of power) of the nervous solids, or from hypostenia, and maintains that the affection peculiar to the nervous system, which is called a diminution of the nervous energy, consists in a phlogosis of the nerves : whence he infers, that even the slow nervous fevers are only slow neuritides.

Brown took the liberty of giving opposite significations to the two synonymous words pyrexia and fever, calling, by the former term, those fevers, in which the increased impetus of the arteries and of the physiological forces predominates, and designating as fevers, those pyrexias in which the diminution of nervous energy and physiological debility predominate. Here the loss of nervous energy is assumed without proof, as in the first mentioned hypothesis, and, this is added to the error peculiar to Brown, viz. the confounding the essence of the disease with that physiological debility, which is manifestly only an effect, and not a cause of the disease.

Boerhaave, as he considered inflammation to consist in obstruction of the capillaries of a part, so he regarded the essence of fever to consist in an obstruction of the capillaries generally throughout the body. Thus he regarded fever and inflammation as morbid forms of the same nature. This theory, although it is founded upon mechanical laws, has the same advantage over the Brownian in the treatment of fever, as it has in that of inflammation.

Our author regards fever and inflammation as of the same nature, and says that while fever may be said to consist in a phlogosis generally diffused throughout the whole body, an inflammation may be said to be

a fever concentrated in one part. He makes a distinction between a febrile state and a febrile process, saying,

“ 1. That the debilitating remote causes do not immediately produce more than a congestion, generally diffused, which, from causes internal or external, being changed into fever, the result is always hyperstenic : 2. That the exciting causes, such as heat, running, spirituous liquors, produce a violently heated state ; which, although it be not commonly called fever, yet is in fact an hyperstenic febrile state. 3. That the irritative causes, in producing a fever, do nothing else than produce a phlogosis throughout the body, of an hyperstenic nature : and, 4. That, whatever may have been the remote causes, and, however they may have operated, if the universal phlogosis be already established as a process, the fever that results is hyperstenic, as every inflammatory process is.” 84.

He draws arguments in proof of the constantly hyperstenic nature of fever, from the identity of its causes with those of inflammation. Maintaining that diminution of the nervous energy is a symptom of phlogosis of the nerves, he reserves the demonstration of this fact till he comes to treat of nervous affections. The loss of flesh sustained by patients in fever, he attributes to the phlogosis of the excretory vessels, and the proof of this he reserves for his discussion on the profluvia or fluxes. He conceives that an irrefragable proof of the hyperstenic nature of fever is afforded by considering what use a person in fever instinctively makes of the non-naturals or external things. Thus, he leaves off all the ordinary stimulants which he can dispense with, and helps himself sparingly to such as are either absolutely or from long custom necessary. He asks for aqueous drinks ; refuses spirituous liquors ; food, unless it be thin or fluid, is always heavy and difficult to be borne, and hurtful in its effects ; he is averse to exercise ; derives relief from lying in bed, and encouraging perspiration ; he desires sleep, and often dislikes the stimulus of light, withdrawing himself from it. A regimen the reverse of this is hurtful, in all cases without exception.

Even the Brownonians regulated the treatment of their supposed hypostenic fevers in this manner, but then they regarded all medicines as stimulants, and absurdly combined remedies of the most opposite natures in their prescriptions. In reply to the question, if fevers be always hyperstenic, how does it happen that bark, a tonic remedy, cures an intermittent, our author says that it affords him one of the strongest proofs of the hyperstenia, because the bark invariably proves hurtful, when given during the paroxysm, which can be successfully treated only by the reductive or resolvent method. In the cure of intermittents, bark operates as a prophylactic fortifying the system to resist the attack of the paroxysms. On the other hand, he asks those who contend for the hypostenic nature of fever to explain how it happens that bark is hurtful during the paroxysms, and how the reductive regimen proves beneficial.

Our author remarks that the result of the treatment affords a proof of the hyperstenic nature of fever, since, although, by some anti-Hippocratics, the use of stimulants in fevers has been often introduced, and they may have boasted of cures obtained by that method, yet the Hippocratic

or antiphlogistic method has always been triumphantly resorted to, and followed by the most accurate observers, that is, by those who guided their practice by observations of facts, rather than by theoretical speculations. The object of this method is not to torture the sick by force of privations and evacuations, but to use reductive means prudently, so as to diminish the fever, as much as possible, and to reduce the physiological strength as little as possible.

That the phenomena of fever are invariable in all cases although different patients, or the same patient in the various stages of the disease, may be in different states, as to vigour or debility, our author considers as a further proof of the hyperstenic nature of the disease. Moreover, even in the supposed hypostenic fevers, when the fever abates, the strength does not cease to diminish, and during convalescence, when the fever is at an end, the debility is not unfrequently greater than ever, which shews that the nature of the disease was hyperstenic, notwithstanding the physiological debility of the patient.

The danger or severity of a fever is in proportion to the degree of prostration of strength, and to the physiological debility or disturbance of the animal functions. Alienation of the senses is a worse symptom than simple delirium; excessive physiological debility, is worse than excess of vigour; symptomatic fluxes than retention of excretions; lividity than bright redness; lowness of temperature, than great heat; and smallness, straitness and irregularity of the pulse, than great fulness, tension, hardness and quickness.

In the third chapter of the second book the resolution and the changes of nature as well as of place, to which fever, inflammation, obstruction, and congestion are liable, are treated of, under the heads *phenomenology*, *pathological etiology*, *diagnosis* and *prognosis*. As the author's observations on this part of the subject seem to be the result of accurate observation and reflection we shall attempt to give a condensed view of them.

Every disease may terminate by resolution, when health is the result; by conversion, when it changes into another disease; or by death. By conversion, a disease may change its seat alone, or its form alone, or both at the same time. When a disease changes its form, it may take another analogous form, as when inflammation changes into obstruction, congestion into inflammation, &c. or it may degenerate into a form altogether different, as when inflammation terminates in the destruction of a part, or in morbid growths, &c.

The resolution of any disease is manifested by the patient feeling better, and being relieved from oppression, but it is the duty of a physician not to mistake a fallacious sense of relief which sometimes is only the harbinger of death, for that real relief which indicates resolution. When resolution actually comes on, all the phenomena of the disease gradually and progressively subside, as soon as the disease has completed its proper course. In proportion as the pathological vital actions decline in vigour, the physiological debility becomes more apparent; and, when the physiological strength and the flesh begin to recruit, the resolution

may be considered as certainly established. If the disease has been accompanied with a symptomatic flux, it is observed gradually to abate as the resolution is established; and, if any unusual dryness or stiffness has existed, the resolution is accompanied with a reappearance of the suppressed secretions. The secretions or excretions which denote a true resolution, ought to occur in the situation, at the time, in the quantity, and of the kind required by the nature of the disease.

The conversion of a disease is recognized by its not ceasing when the time for resolution is past; by the disease appearing to decline, but not so regularly or effectually as in resolution; or by its becoming unreasonably much aggravated; and by the signs of the new form or new seat which the disease threatens to take, already beginning to shew themselves. With respect to changes of form, fever, inflammation, obstruction and congestion are each convertible into the others. With respect to changes of seat, it is distinguished into two kinds, diffusion and translocation. The former consists in a morbid form not quitting its original seat, but propagating itself, and seizing upon organs akin or near to it, or proceeding to affect the whole body: thus, a fever may diffuse, in some organs, inflammation; in others, congestion; and in others, obstruction: an inflammation may diffuse a fever throughout the system, or it may give rise to inflammations, obstructions or congestions in the neighbouring organs. The same effects may proceed from obstruction or congestion. Translocation, or metastasis consists in a morbid form quitting entirely the organ or part where it was originally seated, and being translated under the same or a different aspect to another seat; as when fever terminates in a local inflammation, or when inflammation disappears, gives rise to a fever, &c. A disease sometimes passes from an external seat into an internal organ: this change is called *retro-pulsion*: if, on the contrary, a disease quits an internal organ and seats itself externally, the change is termed *expulsion*.

With respect to the causes which predispose to the resolution or conversion of diseases, they must reside in the constitution of the patient, for, in proportion to the strength and healthiness of the constitution is a disease prone to resolution in preference to conversion either of form or seat, whether the disease be in a morbid state or a morbid process. A morbid process, however, has a necessary course to run, and whether its termination shall be in resolution or conversion must very much depend on the nature of the disease, because, although a morbid process occurring in a strong constitution, and properly treated, more frequently terminates in resolution than in conversion, yet it may be converted, while the same disease occurring in a bad constitution, may end in resolution, notwithstanding improper treatment. This piece of pathology, which is as old as it is true, was recognized by the ancients in their distinction of diseases into critical and non-critical. Morbid states are non-critical because their events depend on the means employed to remove their causes, and on the goodness of the patient's constitution. Morbid processes are critical, that is, subject to a decisive change at a given time, which depends chiefly on the intrinsic nature or quality of the disease.

For this reason, when endeavouring to ascertain whether the means employed in fever, inflammation, obstruction, or congestion, when established as processes, have been useful or hurtful, not one case in particular must be relied upon, but we must either take the average result of many similar cases, or calculate whether, in the course of the cure, the particular effect of individual remedies has been an alleviation or an aggravation of the symptoms.

As to the occasional causes of resolution, it can only be produced by excitants in hypostenic affections, and by reductive agents in all other cases. To ensure success the proper remedies must be given in due time and suitable doses. A slow and pusillanimous practice, by omitting the necessary means at the seasonable time, may permit the conversion of a disease, which, with proper management, might have terminated in resolution. On the contrary, by employing relaxant remedies harshly, they may act as irritants. We ought to adhere to the maxim of the ancients, that a remedy ought at once to be efficacious and bland in its operation; or, in the words of our author's rule, relaxant or reductive means ought never to be different in kind nor less in degree than is required by the violence of the disease, while they ought to be such as can be borne with ease by the patient.

Irritative causes are, under all circumstances, hostile to the resolution of diseases, and frequently efficient causes of conversions as well as of degenerations.

As to the proximate cause or essence of resolution, it consists manifestly in a regular and determinate declension, in the degree or impetus alone of the vital force, or both in the degree and mode in which that force operated during the disease. The proximate cause of conversion is a change of the vital action from one degree of disease to another degree, also morbid, or from one degree and kind of disease, into other degrees and kinds, also morbid.

With respect to the prognosis in the various terminations here discussed, resolution is always the most desirable, as it is the most fortunate; but, though conversion, as compared to resolution, be a less fortunate termination, yet, as compared to death, to conversion into a worse form, or to translocation to a more important organ, it may be desirable. Every *expulsion* is advantageous, and every *retropulsion* hurtful. The conversion of a morbid form into another more inclined to resolution is advantageous, and the reverse hurtful. Moreover, in some diseases which are not susceptible of a radical cure, the best resource of art is to procure a favourable transmutation, either with regard to their seats or forms.

The general cure of fever, inflammation, congestion and obstruction, forms the subject of the fourth chapter of the second book; and, in the first place, the *specific cure* is considered. In scabies, syphilis, herpes, scrofula and rachitis, sulphur, mercury, antimony and iron, do not operate as excitants, but as resolvents, and, accordingly in fevers, inflammations, congestions, and obstructions of a scabby, herpetic, scrofulous and rachitic origin, they act, according to our author, at once as specifics,

cancelling the peculiar qualities of such diseases, and generally as resolvents by diminishing the degree of such morbid forms. These medicines may, therefore, be employed with safety, even in affections unconnected with the diseases in question, since, although there may be no opportunity for them to act as specifics, they may still be useful as general relaxants or resolvents. Even when they may be employed as specifics, it is necessary to use them with such moderation as to prevent their proving irritants.

The *minorative cure* is had recourse to, when there are no specific means, and its object is to abate the impetus of inflammation, obstruction, or congestion. With respect to a fever we have to determine when the means ought to be excitant, and when debilitant, and in the latter, what debilitant remedies are to be employed and in what manner. Congestions while they continue mere morbid states dependent upon debilitating causes, are to be treated by an excitant method, but in all other cases either of hypersthenic congestions, or of congestions which having originally been hyposthenic have already become morbid processes, or of inflammations, obstructions, or fevers, in whatever manner originally established, the method of cure ought to be relaxant.

In discussing the propriety of employing the strong resolvents or relaxants in the cure of fever, inflammation, obstruction, or congestion, our author says, that a metallic solution or the distilled water of lauro-cerasus, applied to a phlegmon, frequently act as irritants; whereas, if on the first attack of phlegmon, it has been treated by means of bleeding and emollients, the former remedies then act beneficially; or, if applied to inflammation of a slow, obstructive, or congestive character, they are borne without inconvenience, and exert their regular relaxant or solvent power. We believe that the lauro-cerasus is not used in this manner, nor for this purpose in these kingdoms. The author goes on to remark that those actions and changes which take place visibly before our eyes in external diseases, must be admitted to take place also under the use of medicines in internal diseases, and that from the former we may learn how to direct our practice in the latter.

Another observation, so far as we know, seems peculiar to the author. If there has been a debilitating agent among the occasional causes of a fever, inflammation, obstruction or congestion, he maintains that we can never employ the same agent, to bring about resolution of the disease. For example, if emetic tartar has had a share in the production of gastritis, we may avail ourselves of every other reductive or relaxant remedy in the treatment of the case, but never of emetic tartar. Or, if cold has had a share in producing pneumonia, we should never resort to the use of cold for its cure. He says he is aware that apparent exceptions might be adduced, but that such cases admit of explanations for which he refers to a subsequent part of his work.

With respect to the extent to which relaxant or reductive means ought to be carried, our author remarks that, when we have no specific remedy, we can do good only by subtracting from the physiological strength so as to diminish the impetus of the pathological actions: and,

although a prudent physician considers it his duty to husband the physiological strength of his patient, yet he will not fear to repeat both bleeding and relaxant or resolvent remedies, as long as they are required by the violence of the disease, being well persuaded, that *one ounce of blood too much may kill a man, but that no man will die for a pound too little*. We have placed these important words in italics, as they seem to us to shew, in an incontestible manner, the soundness of the doctrines peculiar to M. Lanza, since they lead to the same practical result in the most important class of diseases, that has been arrived at, under the guidance of experience rather than of theory, by the best physicians in this country. Should a disease, perchance, be unsusceptible of resolution, or if, from being slight, no fear of death need be entertained, or if the physiological strength may have been sufficiently reduced already, it is proper, our author remarks, even while reductive means are employed, to allow food, although sparingly.

Great attention ought to be paid, in the cure of diseases to the particular idiosyncrasies of patients, because it is not uncommon to meet with individuals who will bear conium, squill, or mercury, yet not digitalis or antimony: hence, the ordinary medical attendant of a patient is not preferred without reason, since he must be better able than any one else to pursue a method of cure that shall prove efficacious, while, at the same time, he avoids causing irritation.

Thus, the new Italian medical doctrine, by admitting the invariable hyperstenia of morbid processes, leads, like the modern and most ancient schools, to the relaxant or reductive method: while, by the theory of changes of mode, which belong to morbid living actions, the abuse of reductive agents is restrained, and the practice deduced from these principles is the same that Hippocrates, from long experience, deemed the most advantageous.

In treating of the *prophylactic cure*, our author enquires whether bark ought to be esteemed a febrifuge, or an anti-periodical. He decides that it is the latter for the following reasons:—

“ The ascertained facts relative to this question are, 1. That the bark only prevents the return of periodical diseases, so that, if employed in diseases, which, though intermittent, are not of the true nature of periodicals, as in the spurious intermittents so called, it does no good, and often harm. 2. That the bark interrupts the course of periodical diseases, whatever be their form, whether from inflammations, nervous affections, or fluxes, &c. 3. That the bark, administered in the paroxysms of periodical diseases, not only does no good, but harm, and, therefore, must do harm in continued diseases. 4. That, during the paroxysms of periodical diseases, the relaxant method is borne without inconvenience, and indeed is useful: in fact, even the Brownonians, in the paroxysm of a periodical disease, do not hesitate to employ debilitating means, and at times even blood-letting.” 104.

Bark is beneficial, not only in fevers, but also in inflammations, nervous diseases, and fluxes, when they are periodical. Hence arises the question, how does bark subdue periodical diseases? Two opinions may be formed on this question; that fevers and periodical diseases are

hypostenic, and that bark acts as a stimulant. In this way it is impossible to explain why it is hurtful during the paroxysm ; and, again, why the reductive method of treatment, consisting of cool drinks, the acids, fasting, keeping in bed, and the loss of blood are beneficial. The other opinion is, that morbid processes, though periodical, do not cease to be as much hyperstenic as if they were continued, and that the bark obscures the periods of such diseases, as opium lulls their pain, although they may be hyperstenic. This opinion, not general in the present day, and almost obsolete in the schools, is adopted and maintained by our author.

With respect to the *palliative cure* of irritative fevers, inflammations, obstructions and congestions, our author remarks that the physician can do no more than attempt to palliate symptoms, until Nature, the art of surgery, or time, shall have applied the specific cure, by expelling or extracting the cause of irritation, or rendering it habitual and no longer troublesome. This palliative cure consists in moderately subtracting the ordinary stimulants, observing an antiphlogistic regimen, using sparingly some remedy of a relaxant or reductive kind. This reductive method is to be increased in energy as the increasing violence of the disease may require. In all cases palliative means ought to be as efficacious as the nature of the disease requires, not more violent than the physiological strength can bear, nor employed in such a manner as to prove irritant. Our author further lays down strict rules for regulating the use of palliatives when they consist of remedies of a nature contrary to those required for the radical cure of the disease, as when opium is employed to ease pain, or tonic astringents to restrain a flux, a method of cure which, as he justly observes, requires the utmost caution and circumspection, as such remedies are extremely apt to prove irritant, unless they have been duly preceded by evacuants and emollients. In proportion to the acuteness or violence of the disease is the danger to be apprehended from such remedies. It is likewise particularly necessary to beware of them when a morbid process seems to be threatening to arise. In proportion as the symptoms requiring the use of excitants are essential to the nature of the disease, it is hurtful or dangerous to employ them. They can only be used safely against pains, which are adventitious or dependent on a cause totally different from the principal disease.—For example, laudanum may be given to soothe a colicky pain in a patient labouring under a fever, provided the pain be not the effect of the fever, but of some adventitious cause, and provided the fever be of such a nature as not to suffer from the laudanum ; but for a cough, the necessary effect of a pleurisy, it is never allowable to use opium.

With respect to revulsive or revellent agents, as blisters, &c. our author maintains, that, although they excite inflammation of the skin or cellular membrane, they really act as solvents or reductives with regard to the internal organs affected with inflammation, obstruction or congestion, and that the hyperstenic nature of such affections, or of fever, is no valid objection against their use, when care is taken not to apply them in the first impetus of an acute disease.

The fifth chapter of the 2d book is devoted to the consideration of nervous complaints. Our author reduces their phenomena to five heads, viz. *pain, stupor, convulsion, torpor, and error*. We have not space to admit of our going at length into his interesting observations upon this subject. To show how far the phenomena of nervous diseases depend upon their proximate causes, he adduces the following practical facts.

“ 1. Under the immediate action of any agent whatever, whether stimulant, debilitant, or irritant, there may arise pain, convulsion, stupor, torpor, and error : the poisons afford the most frequent examples of this. 2. During the same disease, and at the same time, in some organs, may be manifested pain and convulsion, and in others, stupor or torpor : this is seen in an epileptic paroxysm. 3. It is ordinarily the case that pain is conjoined with convulsion, and torpor with stupor ; nevertheless, worms often occasion violent convulsions without pain ; and it is not rare to observe, on some occasions, torpor without stupor, or even with increased sensibility. 4. In error, some sensations become preternaturally acute, and others are stupefied at the same time, and like discordance appears in the judgment. 5. Finally, it is observed, that there may be manifested in the same part, alternating, from hour to hour, pain and stupor, or convulsion and torpor : the *coma vigilans* is a manifest example of this. To express these facts in general terms, we say—*That a nervous disease, from the variation of some circumstance, of which, in practice, we cannot calculate either the form or the cause, may manifest either of the five morbid phenomena peculiar to it, and display them in any combination or alternation.*” 117.

We have not room to examine at any length the arguments which the author advances in support of his opinion that nervous diseases are essentially phlogoses of the nerves. The principal arguments are the convertibility of nervous diseases into inflammations, fevers, or other morbid forms proved or admitted to be of a hyperstenic nature, and the fact that persons affected with nervous diseases are obliged to observe the most abstemious regimen, and to submit to the most rigid privations with regard to the most common stimulants, which not only cause inconvenience, but are intolerable to them. Morbid anatomy shews in the bodies of those who die of nervous diseases, either the brain, the medullary nervous pulp, the ganglia, the nerves or the muscles, tumid and full of blood or sanguinolent lymph, which are marks of congestion ; sometimes red and hard, that is inflamed ; sometimes cineritious, dry and hard, that is, obstructed.

In the 6th chapter, the subject of a bad habit of body is discussed at considerable length, and in a very interesting manner. The following passage shewing the resemblance between the doctrines of Professor Lanza and the humoralist pathology seems curious,

“ The resemblance between our modern and the ancient humoralist pathology is to be seen, if we keep in mind the value of the obsolete term *morbific humor* ; since this, by serving as a general formula to indicate the proximate cause of all morbid forms, febrile, inflammatory, obstructive, congestive, nervous, &c. signifies what, in the modern schools, the word *phlogosis* imports, employed in like manner as a general formula to indicate the essence of the morbid form itself. And therefore we shall see, in due time, how the *dyscrasia lymphatica, biliosa, sanguinea, and atrabiliosa* of

the ancients correspond to phlogoses diffused in the arteries or the veins, or in the lymphatics or in the nerves; and the terms *hot humor*, *slow humor*, *fixed humor*, &c. we shall find evidently to correspond to these of the moderns, *phlogosis calida*, *lenta*, *fixa*, *vagans*, &c. From this it seems, that if, in reading the classical works of the humoralists, we change the word *humor* for that of *phlogosis*, it will almost appear that the ancient pathology is the modern, and the modern will seem as old as medicine itself; for example; in the gout, the ancients admitted a *gouty humor*, latent and spreading in the body, for the most part residing in the lymph, which, by manifesting itself at given times, produced the gout regular or irregular: we say, that in the gout there is a change of quality in the vital power, which produces a continual process of inflammation (*phlogosis*), which, for the most part, is diffused in the lymphatics, and here it is hidden, until, kindled at certain times, it is manifested by that inflammation, regular or irregular, acute or chronic, in which consists the gout." 146.

Passing over the chapter on bad habit of body, which will be found to afford much interesting matter for reflection, as well as that on the morbid alterations of the temperature, excretions and colour of the body, either of which our limited space forbids our attempting to analyse, we extract from the chapter on wounds and the healing process, the following passage, because the peculiar opinion which the author advances respecting what is termed the adhesive inflammation seems to be well founded, though certainly at variance with that which has been generally received by pathologists, since the time of Mr. Hunter.

"Is it true, that, for the healing of wounds, a certain inflammation, called adhesive, is necessary? From observing that cold-blooded animals are less liable to inflammation than those of hot blood, and that they have the faculty of forming new parts in greater perfection; that in our bodies, the parts least liable to inflammation, as the bones, have a stronger power of regeneration than others; that the wounded, who are left ensanguined on the field of battle, recover better than those assisted by surgeons, who are often more officious than informed; that it is never the greatness, but rather the smallness, of the quantity of blood lost that prevents adhesion; and that what is termed the adhesive inflammation, is the more efficacious in proportion as it is less considerable, and of short duration; we are persuaded that the healing is entirely the work of the natural vital force, not irritated nor inflamed, but healthy. But, from our having distinguished inflammation into a morbid process, and a simple morbid state, the present question may be settled with the greatest facility and clearness: because, it not being possible that a true morbid inflammatory process can supervene upon parts, when wounded and separated, without suppuration taking place, it follows, that the adhesive inflammation cannot be believed to be any thing but a simple morbid hyperstenic state. Now, it being inevitable that the wounded substance must suffer irritation and hypersthenia, from the new agents with which it comes into contact, it would be a needless dispute to maintain, either, according to our view, that the irritation and state of phlogosis, although always hurtful, yet admit, when they are slight, of the natural power of uniting the sides of a wound, or, according to the contrary opinions, that such morbid state of phlogosis and irritation are also those salutary means, by which the vital force performs the sublime office of re-uniting wounds, if it were not that two ideas, pernicious in practice, have arisen from the hypothetical idea of adhesive inflammation, the instant correction of which we cannot help demanding of surgeons. 1. That the increased vigor of the machine, and the hypersthenia

of the part, is believed to be very useful to the re-union of wounds. We, on the contrary, believe that, for the re-union of wounds, it is always required that the irritation and phlogosis of the part, if it were possible, should be reduced to nothing, and that in all cases there ought to be induced so much physiological debility as to remove every disposition or cause of any threatened irritation or inflammatory process. 2. That the healing may fail, either from excess or from defect of inflammation. On the contrary, we have demonstrated, that in cases of violent irritation, with stupor and torpor, from contusions and other accidents, and from obstructions, congestions, callosity, &c. of the wounded part, there does not exist debility, but the irritative or inflammatory state, more severe than ever, whence the relaxant method becomes the more useful." 184.

Our author's views respecting suppuration, and especially the distinction he makes between that inflammation which precedes, and that which accompanies this process, as well as his observations on the resolution and degeneration of suppurations, when once established, are also peculiar, and are manifestly the result of much careful observation and profound thinking in an original manner on the phenomena in question.

We are here compelled, however, to close our remarks on this volume, which, we hesitate not to declare, will be found replete with novel ideas and no small portion of valuable information. It would be a good exercise for a student entering upon the career of his professional duties to train his mind in the methods here pointed out for investigating diseases, and thus to form early habits of not yielding his assent to the dicta of any authority without being sensible of the deliberate conviction produced by sound reason upon his own mind.

A new general system of medicine, which, notwithstanding the author's modesty, is unquestionably developed in the pages of this volume, is a curiosity, as well as a novelty in the present state of medical literature; but we apprehend, that the work will be admitted to possess the more rare merit of simplicity, and of gaining the general assent to the doctrines unfolded in it. From this specimen of the author's general pathological principles, we should rejoice in an opportunity of seeing his method of applying them to individual or particular diseases. The translator, however, has not furnished us with that part of the work on the present occasion.

There are several mis-translations, which we deem it our duty to notice, and which would almost lead us to suspect that the translator must either be a foreigner, or must have resided so long abroad as to have acquired the habit of thinking in a foreign language. For example, we find the word "burning" employed where it is evident from the context, that the "being over-heated" was meant. In like manner we have "molestation from cold," to express the state of a person suffering under the effects of extreme cold; "exhaustion from tiresomeness," instead of *exhaustion from fatigue*: "cold to the burned" to signify the reduction of the temperature of a person who is overheated; "the which" instead of *which*. Such errors which greatly disfigure the translation, and sometimes obscure the sense, are much to be regretted, but those who take that interest in the subject matter which it really deserves, will not be deterred by them from carefully perusing the volume.

XI.

Quarterly Periscope
OF
PRACTICAL MEDICINE;
BEING
The Spirit of the Medical Journals,
Foreign and Domestic;
WITH COMMENTARIES.

“ Neglecta reducit, sparsa colligit, utilia selegit,
necessaria ostendit,—sic utile.”—BAGLIVI.

THE motto which we have taken for our Periscope, from the illustrious Baglivi, is sufficiently indicative of the principles which govern us in its construction. No source of useful information, foreign or domestic, shall be overlooked in our search after truth and facts, so as to comply with the mandate, “sparsa colligit.” But to fulfil the difficult task of “utilia selegit,” we must be allowed some discretionary power. Numerous are the articles which come abroad into the medical world, under imposing titles, and dressed in the specious garb of truth, which the eye of experience soon discovers to be spurious or counterfeit; and of which we could offer many curious but perhaps invidious specimens. We choose rather to pass them unnoticed, though at the risk of being thought negligent by some. The precept “necessaria ostendit,” requires equal care and discrimination with that of “utilia selegit.”

Pauci dignoscere possunt
Vera bona.

In our endeavours to accomplish this important part of our duty, we aspire not to infallibility, and need the indulgence of the Public; for to give entire satisfaction to *all*, is impossible. Since our last publication, however, in which was announced the intention of the Medical and Physical Journal to com-

mence a series of AUTHENTICATED HOSPITAL REPORTS, we have received several communications from town and country, respecting this subject; all concurring in the suggestion of dedicating a separate section in the Periscope to an Analytical *Review* of such well-attested records of hospital practice as appear in the periodicals of this and of other countries. We readily acquiesce in the utility of such a plan, and have, this quarter, put it in operation. In our next number we hope to make the arrangement still more complete, and to be able to incorporate with these Reports (in the shape of commentaries or otherwise) some important practical information derived from sources the most authentic. In the mean time, we reiterate our exhortation to the medical officers of hospitals, metropolitan and provincial, to follow the example of those distinguished individuals who have already commenced their clinical reports in our respected cotemporary, the MEDICAL and PHYSICAL JOURNAL. In reviewing these reports, and collocating them with similar documents from foreign hospitals, we hope to give encouragement as well as an extension to their circulation that may prove equally advantageous to the contributors and to the profession at large—and that, in so doing, we shall fulfil the last object contained in our motto—“*sic utile.*”

The commercial difficulties of the times having borne with more than proportionate weight on the press, in this country, the publication of valuable medical works has been greatly crippled, and the periodical journals and transactions are now the principal channels through which medical men can come before the public, without considerable pecuniary loss. This circumstance will, in all probability, increase the afflux of important communications to those useful vehicles of information, and render them the depositaries of numerous facts and observations which, in more prosperous times, would be spread out into costly monographs. But, as a portion (and not a small portion) of the general embarrassment comes home to the door of almost every individual of the medical profession, it rarely happens, especially in the country, that any individual can afford to take in more than one, or at the most

two, periodical journals. On this account, it will turn out to be the true interest of medical journalists to adopt, as far as possible, that division of labour which is found to succeed best in all other departments of art, science, or literature. If two or more periodical works run upon precisely the same plan, and contain nearly the same species of materials, it is evident that a principle of selection will be acted upon by the purchasers, and that consequently some, or indeed all must thereby suffer. This is more particularly the case with respect to REVIEWS. There is but a limited range of monographical publications in medicine, and if there were fifty medical reviews, they can *all* give but accounts of the *same* works. That Review then will be selected which is thought to give the best delineation of the works reviewed; for, in medical science, the plan adopted in general literature, of making the titles of a leash of books the peg on which to hang a critical dissertation, cannot, for obvious reasons, be adopted. If, therefore, one journal confines itself principally to original communications—another to hospital reports—a third to analyses of books, &c. there will be a fairer chance for all to succeed. For, if one individual cannot afford to take in more than one work, he will club with his neighbour or neighbours, and they will take in two or three, if the works are conducted upon different plans, and contain different kinds of information. The truth of these remarks must indeed have been forcing itself upon the observation of journalists for some time past; and we see it unequivocally operating upon their conduct already. Thus the Edinburgh Medical and Surgical Journal has long been conspicuous, and in the highest esteem, for the number and extent of its original communications; and our respected contemporary, the London Medical and Physical Journal, has now adopted a plan of publishing authenticated hospital reports, which has already increased, and will still farther increase its wide circulation and long-established celebrity. There is sufficient field for ingenuity and talent to strike out into yet other plans for exercising the intellect, augmenting the stock of knowledge, and diffusing information through the various ramifications of medical society. We wish them *all* success.

1. ON GASTRALGIA, MISTAKEN FOR GASTRITIS. BY DR. BARRAS.*

Medical men, of the new light, both on the Continent and in this country, commit daily blunders, and put their patients to great sufferings, by confounding gastralgia with gastritic affections—in other words, the neuroses with the phlogoses. We know this by numerous observations—and we know it to our cost. We have gained useful experience on this point, and we most seriously recommend a very careful perusal of the following memoir, not only to young practitioners, but to the whole host of writers on gastric, hepatic, and dyspeptic derangements. It may save many thousand leeches—many pounds of blue pill—and, what is of more consequence, many painful days and sleepless nights, to their patients!

Dr. Barras hesitated long before he brought himself to lay before the public the particulars of his own case—partly from shame for having been so much in error himself—but principally for fear of hurting the feelings of some eminent physicians, under whose advice he had acted. A sense of duty to the cause of truth and science has overcome these scruples, and it would be well for the *latter* in particular, if more disclosures of this kind were brought before the eye of the profession through the medium of the public press. The reader will please to excuse both the patient, and ourselves, if we be somewhat more particular in the detail of history and symptoms, than may, at first sight, appear necessary.

Case. M. Barras is now in the 46th year of his age. When 24 years old, and then an intern student in the St. Louis Hospital, he became affected with a violent neuralgia of the right temple. This pain, which was unaccompanied with any febrile phenomenon, commenced at 10 o'clock every morning, and lasted about two hours. It was aggravated by antiphlogistic remedies, and suddenly gave way to a blister to the nucha. In the 29th year of his age, he began to experience a neuralgic affection of the spermatic cord, which harrassed him for the space of four years, and the history of which was published in the *Bibliothèque Medicale* for 1813. This complaint finally gave way to the repeated applications of moxa to the seat of the pain—that is, immediately below the inguinal ring. On this occasion our author had an opportunity first to remark a phenomenon which has often presented itself to him subsequently—namely that, in the neuralgias, the moxa, when applied to the *nerve actually affected*, does not increase the sufferings, but produces a peculiar sensation which gradually spreads to the various ramifications of the said nerve;—whereas, if applied to a part at some distance from the *actual seat* of the neuralgia, it greatly aggravates the pain (“il fait horriblement souffrir”) and the patient experiences no benefit from the measure. In March 1815, then 36 years of age, and when exposed to some severe moral afflictions, M. Barras became affected

* Sur des Gastralgies Nerveuses Hypochondriaques, prises pour Gastro-enterites Chroniques. Par M. BARRAS, M. D. *Revue Médicale*, Nov. et Dec. 1825.

with a species of irregular intermittent, the accessions of which took place two or three times in the 24 hours, consisting of a severe pain over the right eye, accompanied by a spasmodic cough. In about a fortnight these symptoms were complicated with some acceleration of pulse and heat of skin, terminating in a copious perspiration. There were no rigors, and the appetite remained unaffected. The patient continued to attend to his affairs, and neglected his complaint till the end of April, when he consulted an eminent physician, who, after a patient examination, prescribed an emetic, and afterward the bark in substance, with light nourishing diet. The cinchona would not lie on the stomach, and the complaint continued without diminution. A blister to the nucha, however, removed the pain of the eye-brow, the other symptoms remaining in *statu quo*. The cough continued so obstinate, and was accompanied by so much emaciation, that apprehensions of phthisis were entertained. He was, therefore, sent into the country, and all medicine was discontinued, on the 12th July. In the course of eight days the febrile phenomena disappeared—he began to gain strength and flesh—and by the end of August he returned to Paris, with only a slight cough. For this he was recommended to live a good deal on grit-gruel with milk—a diet which, being long continued, he accuses of occasioning much subsequent suffering, from its debilitating effects on his stomach. His digestion now became gradually weak, imperfect, and painful, accompanied by a sense of weight at the epigastrium, pains in the pectoral muscles, variable appetite—eructations, flatulence, colic, constipation. These symptoms were all exasperated in damp and hot weather with southerly winds, and ameliorated by contrary states of the atmosphere—especially by an excursion of even a few days into the country. A complete gastric affection became now established by degrees—it might be called an *acute* supervening on a *chronic* gastralgia—“for the neuroses, like the phlegmasiæ, may be either chronic or acute”—an observation in which we entirely agree, though it is little attended to by physicians. An exasperation was caused early in 1832, by severe studies and anxiety of mind. To the symptoms enumerated above, were added a violent pain in the epigastrium, of a kind which requires particular notice. It always began about two or three hours after meals—at first by a sense of constriction in the stomach, then pain, and ultimately nausea, and an indescribable malaise. The digestion finished, these symptoms all disappeared, to be renewed each time that food was introduced into the stomach. Although M. Barras continued his professional avocations, he wasted in flesh, and as he now feared he had a chronic gastro-enteritis, he applied to the physician who first attended him for the intermittent. This gentleman affirmed that the complaint was not a gastro-enteritis, but he gave him to understand there was considerable danger attending it, which declaration occasioned the most poignant alarm in the patient's mind, and produced bad consequences in the end. For although the plan recommended by this physician (magnesia, the waters of Vichy—mild animal food, &c.) was attended with great amelioration of the symptoms, still the patient's

mind was haunted with apprehensions for the future. Soon after returning to the capital a relapse took place. The sight of patients, especially those who had any gastric affection, induced the most lively agitation of mind. These circumstances, together with the intense heat of August and September, threw the patient as far back as ever. He now applied to another physician who, being inclined to Brucianism, pronounced the disease at once to be a "*gastro-enterite*." It was in vain that M. Barras alluded to the whiteness of his tongue, the absence of fever, thirst, or tenderness on pressure of the epigastrium—the habitual constipation, &c. The disease was *gastro-enterite*. The tongue would become red—fever would arise by and bye—diarrhea would supersede constipation. The treatment is easily imagined. Leeches to the epigastrium—slops for food—and simple water for drink. Country air indeed was added, which was the wisest part of the advice. The remedies recommended aggravated every day the complaint. Even the country air this time failed in its usual beneficial effects, and when the gloomy month of November set in—then agitation, despondency, sleeplessness, and tedium vite reigned triumphant over the unhappy patient! The sensibility of the stomach now seemed to acquire a new degree of intensity. "*D'organique elle devient animale—pour me servir du langage de Bichat*." The stomach also became the seat of the most strange and anomalous sensations, sometimes of burning heat—sometimes of icy coldness—sometimes of formication, as if animals were creeping about in it. The pain a few hours after eating now became insufferable—in short, the stomach seemed now incapable of bearing the presence of any alimentary substance, without extreme pain, ending in nausea and the extrication of large quantities of gas, after which a respite from suffering ensued. Under these circumstances it was remarked by the patient, that liquids caused greater gastralgia than solids; and yet, notwithstanding all these indications, M. Barras persevered most resolutely in the watery regimen. But things at length arrived at such a crisis, that it was with the utmost difficulty he could resist the propensity to suicide. Mean-while some new phenomena were added to those already on record. M. Barras became extremely sensible to external cold—his feet were like lumps of ice—he felt strange sensations in different parts of the body—and the propensity to make water (which was as clear as from a fountain) was incessant. Palpitations of the heart were now distressing, as well as the most extraordinary pulsations in all tangible arteries. To these were at length added two or three daily febrile accessions, consisting merely of acceleration of pulse, heat of skin, and ultimate perspiration. This last train of phenomena completed our author's fears, or rather his hopes, of approaching death, since it had been predicted that fever would at last arise, when the disease had got to its height.*

* This is an admirable picture of the state to which a patient with *dyspepsia* may be reduced by the antiphlogistic regimen. The writer of this article was once nearly destroyed by following the advice of a *médecin*.

M. Barras' relations now in despair brought another physician, a pure Broussaian, who not only recognized *chronic*, but a severe attack of *acute* gastritis, which had supervened on the other! Nothing short of 40 leeches to the epigastrium could be of any use. M. Barras refused at first, but overcome by the entreaties of his family and his physician, he assented. This measure nearly completed the business. Rapid marasmus—vomittings—faintings—excessive flatulence—utter inability to bear any food—dreadful pain, &c. promised soon to put a period to the unhappy and misguided sufferer's life and ailments! We now hasten to a close. In this dreadful condition M. Fouquier was called in, and after an attentive examination of the history and symptoms, he pronounced the following sentence, in the truth of which we entirely agree. "You have no inflammation, said he—you never had any. The complaint is a gastralgia, an excess of sensibility in the nerves of the stomach, and nothing more."—"The treatment," M. Fouquier continued, "is very simple, and success is certain." These consolatory expressions alone had a considerable effect in mitigating the symptoms. The regimen is easily imagined. Light animal food instead of slops and gum-water:—Bordeaux wine was substituted for the crystal spring—the cold bath was ordered, and a blister to the epigastrium. Still, it was some time before the stomach would bear proper aliment, after the long debilitation which an erroneous view of the case had produced in that organ.

It is a curious circumstance that, about this time, a severe domestic affliction (a fatal illness of M. Barras' daughter) contributed greatly to his own cure, by attracting all his anxiety to the dangerous state of his child, and withdrawing his reflexions from his own complaint.

The above case is exceedingly instructive, and it is one of very common occurrence in these days of hobby-horsical theories, when every pain in the stomach or imperfection in the process of digestion is attributed to chronic inflammation of the mucous membrane of the stomach or duodenum, and when leeches, blue pill, ipecacuan and sarsa, are the only remedies which can enter the minds of the digestive-organists, while the wretched patient is put upon a slop and vegetable diet which aggravates the disease. The delusion is increased by patients evincing tenderness when pressed hard in the epigastric region. We can assert from numerous observations, and from personal suffering, that there is more tenderness in these states of neuralgic affection than in the opposite conditions of chronic inflammation. No one symptom, therefore, should be trusted to, but a careful examination made of the whole phenomena.

But it may be said that an insulated case is nothing to draw a conclusion from. This is true. And yet one well authenticated fact is often sufficient to upset a fine-drawn theory. But M. Barras does not

physician on this point. So far from there being any inflammatory diathesis in the above case, the whole phenomena depended on an opposite condition of the stomach—*stony*.—Rev.

rest his conclusions on isolated cases, or exceptions to general rules. He supports his subject by many facts. Three cases of hypochondriac gastralgia are recorded by M. Georget, (whose veracity is unimpeachable) where the antiphlogistic treatment produced corporeal extenuation and a kind of mental imbecility. Of two similar cases that came under M. Barras' observation, one terminated fatally—and this case he now publishes, to clear his conscience.

A young lady having, in the year 1793, experienced great moral affliction, fell into a state of melancholy, attended with pains in the epigastric region—aggravated after eating. During the many years which this malady continued, she consulted numerous physicians, but without any permanent cure. She had occasional and long intervals of comparative ease, but never a total cessation of the complaint. The least error in regimen or disagreeable moral emotion was sufficient to renew the disease at any time. In the year 1819, a combination of circumstances had caused aggravation of the complaint, and it was at this period, (the patient being in her 47th year) that M. Barras was consulted. She now complained of eructations, nausea, constipation. Immediately after eating, she felt as if there was a lump of lead in her stomach, which sensation went off, when the gastric digestion was finished. There was, in this case, no tenderness on pressure of the epigastrium. She was not emaciated nor reduced in muscular strength. She felt, however, an unaccountable apathy and nonchalance. Inbued at that period with the new physiological doctrine, and convinced that the disease was a chronic gastro-enteritis, M. Barras ordered, of course, the antiphlogistic treatment—but in a moderate degree, applying only 16 leeches to the epigastrium at a time.—But the malady made progress, in spite of the leeches, and so quickly too, that our author requested a consultation. The physician who was called in, participated in the erroneous opinion with M. Barras. They prescribed Seltzer water, which was followed by enormous tympanitis that resisted every remedy, and the poor lady died in dreadful torments. Examination of the body was not allowed; but M. Barras is now fully convinced that gastro-enteritis was not the disease which caused the death of the patient.

Case. Madame Capdeville, aged 56 years, had been subject to much mental sufferings, and constantly complained of pain in the region of the stomach. She was treated as for gastro-enteritis of a chronic kind; but died rather suddenly in the month of June, 1822. M. Barras was called to examine the body, and the physician who had the charge of the patient, pronounced, with all the confidence of a true disciple of Broussais, that they would find the "inevitable" cause of all diseases—inflammation, if not ulceration, of the mucous membrane of the stomach and bowels. Nevertheless, this membrane was found perfectly natural, both in the stomach and intestines, with the exception of a slight blush of redness on a small patch of the ileum. There was some

serous effusion in the ventricles of the brain, and a slight enlargement of the heart.

The next case related was not quite so melancholy. The vigour of the patient's constitution happily triumphed over both the malady and the remedies.

Case. A man, upwards of 30 years of age, clerk in a Notary's office in Paris, was disposed to gastralgia, in consequence of sedentary habits and hard labour at the desk; the disorder having been greatly aggravated by chagrin at the death of his mother. The complaint commenced, as it usually does, with difficult digestion and pains in the epigastrium, exasperated after eating, and mitigated when the stomach was empty. A young physician, a disciple of Broussais, was consulted, and it is hardly necessary to say that he instantly detected a chronic "*gastro-enterite*." After 120 leeches had been applied in different squadrons, and the usual antiphlogistic remedies had been employed, in conjunction with starvation, the malady, instead of giving way, had considerably increased. The pains in the stomach were much more severe, and greatly exasperated by the smallest quantity of ingesta, which also produced eructations and nausea. Constipation became obstinate—the abdomen was generally distended with gas—urine pale, and passed in large quantities—strength and flesh decreasing rapidly—palpitations and breathlessness on using any exertion. To these symptoms were added, morbid sensibility to cold—mental irritability—despondency—ennui, and disgust of life. The patient had been eleven months in this condition, when M. Barras was requested to see him, and found him as above described, the emaciation having arrived to an actual marasmus—and the *tedium vitæ* threatening suicide daily. On examination, he was convinced there was no organic disease of the stomach—no chronic inflammation of the intestinal tube—in short, that the disease was of the class *neuroses*. After encouraging the patient as much as possible by assurances of recovery, M. Barras discarded at once the warm baths, the debilitating slops, and the other parts of the antiphlogistic regimen—prescribing the reverse, but beginning cautiously, of course, and warning the patient that his stomach would find considerable difficulty at first, in overcoming animal food. The advice of M. Barras was but partially followed for a time, on account of the fears of the patient, and his ordinary medical attendant dreamt of nothing but *gastro-enterite*. Nevertheless a gradual improvement took place—the patient gathered courage—undertook a journey into the country—and returned to the capital in perfect health.

Such is the delusion of the Broussaisian disciple, that he persists to this day in averring that it was his plan, so long previously pursued, which cured this patient of the "*gastro-enterite*." Thus, if the patient dies, the advocate of Broussais exclaims that the disease was incurable.—If his constitution resists the malady and the remedies, then he swears he cured him—if he gets worse on slops, and recovers on solid food, the slops were the sole cause of the fortunate event!—The same thing is

daily occurring in this country. Tenderness on pressure in the epigastrium is the signal for leeches, blue pill, and slops. The patient gets worse, and the remedies are increased. At length, tired out, the patient escapes into the country and recovers. The doctor takes all the credit of curing the patient, who only wanted a little country air to complete his convalescence! *Aussi va le monde.*

If you show the disciple of Broussais or his prototypes here, the mucous membrane of a patient, who dies of this complaint, as white as a piece of boiled tripe, he begins to scrape it with his scalpel and at length discovers, or produces, some blush of redness in the part. His triumph is then complete. If he cannot do this, then the gastro-enteritis has disappeared in death—a most convenient doctrine for the school of Broussais!

It is with the disciples of Broussais in France, and the digestive-organists in this country, as it was formerly with the disciples of the celebrated Corvisart. It is well known that when that eminent physician first published his work on diseases of the heart, half the students in France fancied themselves ill with organic affection of the central organ of the circulation. They felt their own pulses, and the mental emotion, caused the heart to beat quick or even irregular. This was enough. All was lost. Bleeding and starvation increased the derangement of function in the circulating system, and as many of them died as could be killed by the force of imagination! So with the blind followers of Broussais, Abernethy, and others:—they expose their tongues to every looking-glass—and if there be any fur at the root, or redness at the tip—they have the “*inevitable gastrite ou duodénite chronique.*”—Leeches and slops render the stomach so weak and irritable that, when they attempt any solid food, they are greatly distressed—and thus they are confirmed in their first erroneous impressions.

Case. A butcher in Paris, whose father had died at the age of 42 years, of scirrhus of the pylorus, became persuaded that he had the same disease, whenever he felt any uneasiness in the stomach. In March, 1825, his imagination had so aggravated his feelings that the stomach was tormented with severe gastralgia, nausea, and even vomiting. M. Barras was consulted, and soon discovered that the disease was gastralgia, and not gastritis. By assuring the patient that there was nothing like cancer of the stomach in his case, he took courage, was put on a proper regimen, and soon got quite well.

About six years ago our author was consulted by a lady, of middle age, on account of a hypochondriacal gastralgia which had come on after some domestic affliction. Having gone for some time into the country, the lady consulted, in his absence, two celebrated physicians, who pronounced the disease “*une superbe gastro-enterite chronique,*” which would be cured in six weeks by relays of leeches to the epigastrium, gum water, milk diet, and the warm bath. The means were used, but the prediction was not verified. At the end of six weeks she was worse than at the beginning. The disease has continued, because

the moral causes that first produced it are still in operation ; but there is no reason to believe there is any organic, or even inflammatory affection of the stomach.

There is an American gentleman now in Paris, who came over to be cured of a gastralgic affection which he has laboured under for the space of 25 years. During the last 22 months the complaint has been attended with daily vomiting. He has been under more than a dozen of physicians, who have treated him, some for an organic disease, some for chronic gastritis, some for neuralgia of the stomach. None of them have succeeded ;—and for this reason, that the patient himself is convinced the villous coat of the stomach is destroyed, and that the disease is incurable. This infatuation keeps up the complaint. He constantly uses the cold bath, and in that only finds relief. He lives almost entirely on sugar. Yet he preserves his strength and flesh, and his complexion is perfectly clear and healthy. “ Is it possible that this case can be gastritis ? No :—if it were, he would have been dead long ago.” There is this essential difference between gastritic and gastralgic affections—that the *former* is soon (comparatively speaking) fatal ; whereas the *latter* seldom destroys life unless very improperly treated.

GENERAL AND COMPARATIVE HISTORY.

I. The pain, in *chronic gastro-enteritis*, is generally obtuse, as is the case in all inflammations, whether acute or chronic, of the mucous membranes. This pain is often only felt on pressure—but whatever be its degree of intensity, it is never absent, from the beginning till the end of the complaint. Gastralgic or nervous pain, on the other hand, is frequently of extreme violence, and what is remarkable, it is often at these times relieved rather than increased by firm pressure. This pain, which occasionally radiates from the epigastrium towards the thoracic parietes, the back, and the shoulders, is of an intermittent character, sometimes entirely disappearing, to return again with more or less violence.

II. In *chronic gastritis*, the tongue, which is generally red on the sides and at the tip, is covered in the middle with a kind of dry mucous crust, resembling a false membrane—the breath is fetid—with a bitter taste in the mouth—there is thirst. In *gastralgia*, the tongue is white—saliva abundant—no thirst, but sometimes a repugnance even to liquids.

III. In *gastritis*, the appetite is always bad, and sometimes amounts to a universal disgust towards every kind of food. In *gastralgia*, the appetite is variable—null—slight—natural—often greater than in health.

IV. In *chronic gastritis*, the ingestion of a small quantity of food renews the patient's sufferings—excites a febrile movement in the system—and the digestion is always imperfect.—There is often rejection of the food by vomiting a little time after eating—or, if there be no vomit-

ing, the patient is oppressed during the digestive process, with a sense of weight, distention, nausea, acid or acrid eructations, and irritation of the bowels or diarrhoea in the advanced stages. In some cases of *gastralgia*, the pain is relieved, at least for a time, by eating food in considerable quantity, and the digestion is complete, or even too quick. In the generality of cases, however, of *gastralgia*, the presence of food in the stomach renews the pain; but not till some time after eating, generally one, two, or even three hours; at which time the patient experiences weight and malaise at the epigastrium, as if there was a foreign body in the stomach. There are nausea, borborygmi, flatulent colic, eructations of air, but without fœtor or causticity. Sometimes, indeed, they will taste the aliments that they have swallowed in the air which they eructate, but the digestion is completed, and diarrhoea is very rare. Constipation, indeed, is generally obstinate—and the urine, especially when the *gastralgia* is in a high degree, is usually pale, rendered frequently, and in small quantities at a time.

V. The chronic gastrites, however slow in their march, never fail in the end to exert a morbid influence on the process of nutrition, inducing hectic fever, characterized by hardness and frequency of the pulse, heat of skin, and evening exacerbation, loss of flesh and strength, sallowness of countenance, with a peculiar dark tinge—and lastly, death, after the resources of art have been exhausted in vain!

We see, on the other hand, people complain for ten, fifteen, twenty years—nay, the whole of their lives, of gastric pains, without fever, loss of flesh, or diminution of strength. Such cases, it is true, are comparatively rare; for, in general, a continuance of *gastralgia* deranges the health, and may even cause excessive emaciation, especially if the complaint be mistaken, or improperly treated. The complexion, however, preserves its freshness. And if, in a few instances, we perceive some febrile movement in the system, it is by no means a proof of phlogosis in the stomach, but may result entirely from a neuralgic source. Intermittent fevers themselves, in their simple form, have nothing inflammatory at bottom.

VI. In somewhat violent and prolonged cases of *gastralgia* the patients experience difficulty of breathing, palpitations of the heart, wandering pains, and peculiar sensations of coldness, especially in the arms, loins, and lower extremities. Their sleep is sometimes good, sometimes agitated, sometimes null; yet, in the mornings, they get up refreshed and feel quite well, till breakfast renews the gastric sensibility. Nothing of this kind obtains in latent gastritis.

VII. Those who are affected with chronic inflammation of the digestive tube, are melancholy, morose, and impatient—but this is nothing to the state of moral depression and anxiety which obtains in *gastralgia*. In this last, there is ineffable despondency—disgust of life or fear of death in the extreme—the slightest sensation in the stomach awakens

the patient's terrors—he is tremblingly alive to every look of his physician—to every word which is spoken by his friends respecting his complaint. He is afraid of taking any thing into his stomach, and by this he aggravates the complaint—he is convinced that his disease is mortal—becomes entirely absorbed by his own sensations, and indifferent to every thing else. But any diminution or temporary cessation of the gastralgia immediately changes the scene from despair to sanguine hope—to be again reversed on the slightest accession of the pain. Thus he goes on alternately desponding and hoping, till health is ultimately established.

Can any one suppose that these two opposite trains of phenomena, as presented in gastralgia and gastritis, are dependent on the same pathological condition of the organ affected? Although reason and observation must convince most practitioners that these two states cannot be identical, yet it is not so easy to prove their diversity. If patients died of gastralgia, dissection would throw some light on the point in litigation; but they do not die unless the disease passes into gastritis, and then the disciples of the new doctrine consider themselves as confirmed in their former diagnosis. But it may be urged, and with more shew of reason, that gastralgia is the first stage of gastritis—and that inflammation must always be preceded by more or less of irritation or affection of the nervous system of the part. If we admitted this in a physiological or pathological point of view, we could make little use of it in practice—nay, it would be of positive disuse. The treatment of gastralgia differs, *toto cælo*, from that of gastritis—and what is useful in the one disease would be injurious in the other. This we have so repeatedly witnessed, that we cannot draw too much the attention of the young practitioner to the distinction between the two affections, more especially as there is a prevailing mania, both in this country and on the Continent, to amalgamate the two states, under the term chronic inflammation of the mucous membrane of the stomach and alimentary canal. The diagnosis between these two diseases is greatly assisted by an examination of their etiology—a study of the utmost importance in all cases.

Etiology. I. The most common causes of *chronic gastro-enteritis* are:—The abuse of spirituous liquors—stimulating medicines—emetics (this does not apply to England, and is probably an exaggerated cause in all countries)—drastic purgatives—poisonous substances—the presence of foreign bodies in the alimentary passages—too stimulant diet—excesses at table—ices and cold drink taken when the body is heated—vicissitudes of temperature, especially from hot to cold—particular temperaments, as the sanguineous, which dispose to the phlegmasiæ—suppression of hæmorrhages or other accustomed evacuations—repercussion of cutaneous diseases—rheumatic and arthritic metastases—contusions on the regions of the stomach or bowels.

II. Let us take a view of the causes of gastralgic affections. These

are, a nervous and irritable temperament—sedentary habits—desk-work, and mental exertion—all the passions, when in excess, as jealousy, ambition, envy, &c.—disappointments, losses, and vexations of mind—certain trades or professions, as tailoring for example—venereal excesses—hot and moist atmosphere—fear of having gastro-enteritis, among medical and literary patients—too lowering a diet for other complaints—long fasting—too much liquid and slops—excess in tea-drinking—in one word, every thing which can inordinately exalt, directly or indirectly, the nervous sensibility or susceptibility of the stomach. Much error, we are persuaded, has arisen from considering as similar, the effects arising from different morbid causes acting on the stomach. We will take two causes for example—the immoderate use of *ardent spirits*, and *profound grief or disappointment*. Gastralgia may and does often result from both these causes; but are we to infer that it is of the same nature in both cases? Certainly not. In the *former*, it is likely to be of an inflammatory, in the *latter*, of a purely *nervous* character. We grant that it may be difficult to ascertain, in the first instance, what is the real character of the gastralgia, as the causes are often studiously concealed from our view. But surely, in such cases, it is wise to be guided by the effects produced by medicinal agents, and not wildly rush on, from a preconceived theory. If we find that the pain in the stomach is increased by antiphlogistics and starvation, ought we not to make a cautious trial of the opposite plan—sedatives and tonics? But the disciples of Broussais (the gastromaniacs) deny that we can learn any thing of the nature of a disease from the effects of the medicines employed in the treatment—a very convenient disbelief certainly! We maintain, on the other hand, that the nature of a disease is often determined, and can often be determined *only*, by the effects of remedies. This is a truth which every practitioner knows well.

In this place our author makes a remark, the justice of which we can vouch for—and indeed we have more than once endeavoured to impress it on the minds of our brethren. In gastralgic and dyspeptic affections the patient is desired, as a routine rule, to eat *little and often*. This appears to have some support from the fact that the patient with gastralgia often feels a craving for food a few hours after having taken nourishment. But woe to him who has the imprudence to satisfy this craving! It is a false hunger which ought to be borne with patience. The stomach, like every other muscle, requires its periods of repose, and we are convinced that there are but few cases where the regular hours of eating should be interfered with. These may be more frequent where there have been great losses of blood, or exhaustion from some severe disease. In the convalescence from such accidents the stomach, in the name of the whole system, demands more frequent supplies of food than in a state of health, and digests it more rapidly. But these are very different from cases of gastralgia and dyspepsia.

In conclusion, our author admits that there are cases where gastralgia and gastritis are combined, and then the treatment becomes very difficult. The very combination itself is probably sometimes produced by

a too stimulant regimen or medication for the cure of gastralgia. Irritation may and does pass sometimes into a state of inflammation—and the wonder is that it does not oftener change thus, on the principle “*ubi dolor, ibi affluxus*.” No rules of conduct can be laid down for the diagnosis or treatment of such combinations, and the practitioner must trust to his own sagacity and discretion in each particular case. We conceive that the present paper will do much good, especially on the continent, where gastro and enterito-mania is the order of the day.

“It is almost inconceivable,” says our author, “with what readiness our physiological physicians admit the existence of gastric inflammation. If we are to believe them, the stomach is a kind of powder-magazine, which is exploded by the most trifling spark, and by means of the most opposite nature. Nay, it takes fire *spontaneously*, according to their account, like a stack of damp hay—and gastro-enteritis, acute or chronic, continued or intermittent, regular or irregular, sporadic or epidemic, contagious or non-contagious, usurps almost the whole nosological chart, under the denominations of plague, typhus, small-pox, measles, scarlatina, fevers of all types, cholera morbus, gastralgia, bulimia, hypochondriasis, &c. In short, it is a perfect Proteus, with all kinds of shapes at command—a complete Hydra, whose heads give employment to the whole faculty, and grow again as fast as they are lopped off.” If for *gastro-enteritis* we substitute “derangements of the digestive organs,” the satire will perfectly apply to the *gastro-mania* of this country. “*Mutato nomine, de te fabula narratur*.”

2. SPASMODIC CONTRACTION OF MUSCULAR TUBES.

Dr. A. Monroe has favoured the profession with a paper on this subject, in our contemporary of the north—the Edinburgh Journal of Medical Science, of which we shall take a short notice. We think the worthy Professor has wasted time in discussing the question of muscularity in certain tubes, as the urethra and bile ducts. Suppose the eye fails to detect *muscular* fibres in these tubes, will any one be hardy enough to deny that they possess *contractility*? There are very few tissues or structures in the body that are perfectly devoid of this quality—and that the tubes above-mentioned are endowed with it, and in no mean degree, every pathologist must have had ample opportunities of proving. Passing over fifteen or sixteen pages, therefore, of matter which is not not very interesting to the practitioner, we come to the pith of the communication.

1. *Spasm of the Gullet*. This is a far more frequent disease or rather disorder, than is imagined, especially in females. The spasm is oftener partial than general, the constriction occurring most commonly at the union of the gullet with the stomach. In such cases the patient feels as if some extraneous body were lodged within the oesophagus, accompanied by an ascent of air, the stricture preventing it going off by eructation. The food is either detained for some time, and then reaches

the stomach, or is rejected as soon as it touches the spasmed part. The symptoms of spasm in the œsophagus, in addition to the foregoing, are, sudden loss of power of deglutition, accompanied by sense of constriction in the fauces, which have a parched appearance—great weakness and emaciation, if the disease continue. The seat of the spasm can only be ascertained by the probang, which will be firmly grasped by the contracted part of the tube. This spasm of the œsophagus sometimes lasts only an hour or two, at others for days, weeks, or years. Dr. M. relates some particulars of a curious case that occurred in the Royal Infirmary of Edinburgh, in 1792. The patient was a young woman who had long laboured under epilepsy, succeeded by paralysis of one of her limbs, and imperfect vision of one eye. She then gradually lost the power of swallowing, and at length upon attempting it, was seized with convulsive attacks. Soups and nutritious substances were introduced into the stomach by means of a tube, and by this process she was nourished for two years and eight months. She gradually recovered the power of swallowing, and enjoyed a tolerable share of health. Having afterwards died of inflammation of the lungs, the œsophagus, on dissection, was found free from disease.

Hoffman relates a remarkable case of a man who, in consequence of excessive grief, was seized with spasm of the pharynx and difficult deglutition, together with the sense of a foreign body thrust down his throat. In the accessions of spasmodic contraction he had shivering, constipation, formation of wind in the intestines, want of sleep, hard pulse, limpid urine. This disease lasted three months, with intervals between the paroxysms. The patient is said to have been cured by medicines prescribed by Hoffman—chiefly his own liquor anodynus; but we are disposed to think that Nature and time were the principal agents in the cure. This complaint is by no means uncommon among nervous and hysterical females. The treatment will be alluded to presently.

2. *Spasm of the Stomach.* This is one of the most painful complaints, while it lasts, that human nature is liable to. It comes on in paroxysms of acute pain which almost entirely stop the breath, attended with weak pulse, palpitation, and sometimes sudden death. Indeed it is quite impossible for life to continue very many minutes under severe spasm of the stomach. Fortunately it remits, and thus gives the unhappy patient a respite between the fits. It is generally produced by irritating or indigestible substances eaten as food, when the stomach and digestive organs are disordered. Gout is well known to attack the stomach in this form, and to prove a very dangerous disease.

3. *Spasm of the Intestines.* Colic is so common and familiar to the practitioner, that we hardly expected Dr. Monro would have gone through the ceremony of describing it, at this time of day. The Doctor gives us the titles of eleven kinds of colic, and moreover a list of the various authors who have written on the complaint, from

Alberti to Merat. This is all very erudite, and such as should usually appear from the Caledonian Athens. It is not, however, what the practitioner looks for in a paper in a periodical journal. Practical facts are there in their proper place and station. There are some species of colic which are readily distinguishable from others, as the colica pictorum, for instance; but there are varieties introduced by Dr. Monro which it would be somewhat difficult to discriminate at the bed-side of sickness, as the colica spastica, phlogistica, calculosa, scorbutica, hepatica, &c. These are very neat articles of furniture for a lecture-room, or an inaugural dissertation; but they are rather in the way of the practitioner employed in active scenes and occupations.

3. *Spasm of the Biliary Ducts.* Without denying the muscular structure of the bile ducts, Dr. Monro does not believe that spasm is so often a cause of jaundice, as has been stated by authors. Simple spasm, independent of any other morbid condition, must, we think, be a rather unusual cause of jaundice, though in sudden emotions of the mind, this would appear to be sometimes the case. But when the biliary secretion is depraved and viscid, obstructing the ducts, it is not improbable that spasm then comes on, in the same way as it takes place when gall-stones are impacted in the tubes. Gall-stones, says Dr. Monro, while passing through the cystic duct, create pain and sickness of the stomach, but do not prove a source of jaundice. This position we are inclined to doubt. The vicinity of a calculus in the cystic duct may readily obstruct the hepatic or the ductus communis, and thus produce jaundice, as may be easily conceived, and the history of cases confirms this. The symptoms of gall-stones impacted in, or passing the gall-ducts, which are stated by Dr. Monro, are those found in every book, from Thomas's Practice upwards.

4. *Spasm of the Urinary Bladder.* We look upon the following symptomatology of spasm in the bladder, as of very equivocal character. "The earlier symptoms of the disease are, a dull pain accompanied by a sense of constriction in the organ affected; and this pain extends along the ureters to the kidneys, loins, and thighs. An itching of the glans penis, and frequent erections are *not unfrequent*. The contracted bladder, by pressing on the rectum, impedes the exit of the feces, which is followed by pain in the belly, and considerable distention of the bowels. Owing to the continued impediment to the passage of urine, the valvular communication of the ureters is forced, and the urine regurgitates and distends these canals, which is denoted by acute pain in the region of the kidneys. The patient has at the time, urinous sweats, and even his breath smells of urine. The spasm is sometimes succeeded by inflammation of the bladder." We acknowledge ourselves at a loss to know how all these phenomena were ascertained to be the consequence of *spasm* of the bladder. Dr. Monro cannot mean either the hour-glass contraction of the bladder, or spasm of the neck of that organ, as these affections are afterwards described, with their appro-

appropriate symptoms. He must therefore mean general spasm of the whole of the bladder, and if so we should be exceedingly obliged to the Doctor to favour his brethren with some of the cases on which the foregoing symptomatology is founded.

Hour-glass Contraction. When a catheter is passed up, in such a case, only a few ounces of urine are discharged, and a tumour can still be felt in the pubic region. We are informed that the late Dr. Clark, being aware of this circumstance, passed a gum-elastic catheter through the contracted portion, and thus drew off the urine from both the cavities of the bladder.

In respect to spasm of the neck of the bladder, with its accompaniment, retention of urine, we need say nothing. The symptoms are well known, and it was hardly worth Dr. Monro's while to record them again. The same remark applies to spasmodic stricture of the urethra, of which Dr. M. has given a very meagre account, occupying about a page.

Treatment. Dr. M. informs us that, in order to remove the spasmodic contraction of the passages for the food, the bile, and the urine, it is necessary to remove the cause, if possible. This is saying little more than that it is necessary to remove the disease. Thus, impacted faeces in the colon—a gall-stone in the biliary duct—a calculus in the bladder or urethra, will cause spasmodic contractions in those parts, and the removal of these is, of course, the removal of the disease. But to remove the causes we must often attend first to the effects. We agree with Dr. Monro that, “when much pain and irritation exist, the detraction of blood, and the tepid bath should precede the use of opium and other antispasmodic remedies.” In respect to impacted gall-stones, we are sorry to say that we have less confidence in the power of medicine than most of our brethren. We are afraid that we can do little else than prevent mischief from inflammation in such cases, as we know of no medicine which has any power in propelling forward the concretion. The best way to relax the spasm when it exists, is by local depletion from the epigastrium, warm baths, and opium. We lately saw a rapidly fatal case of this kind in the person of a gentleman (Mr. S. of Lewis-ham) to whom we were called in the night. He had then laboured for six days under severe pain in the region of the gall-ducts, vomiting, headache, and latterly, fever. During this period not a trace of bile appeared in the motions, while the urine was like blood, and the skin, first yellow, and afterwards of a mahogany hue. We found him with delirium, black tongue, pulse 130, and the epigastrium so tender as not to bear the slightest pressure. The intelligent surgeon by whom he was attended, had used all the remedies which are recommended in such cases, but without any effect, and in 36 hours after this period the gentleman died. Dr. Beck saw him in this interval. Unfortunately we could not procure permission to examine the body; but there can be no doubt that a mechanical obstruction existed in the bile ducts, and

that inflammation had supervened on spasm, by which these tubes were probably rendered impervious. The case approached pretty closely to what might be termed the green or black jaundice.—When fever and delirium arise in this disease, they are very formidable symptoms.

While writing these observations (July 7th, 1826) we had an opportunity of witnessing the happy effects of medical assistance promptly administered, in a case equally threatening, but where the obstruction was in the intestinal tube. A young man in the Strand, after eating imprudently of fruit and new potatoes, was seized with severe pain in the abdomen, between the umbilicus and left ilium, attended by vomiting, and complete constipation. Mr. Wilson, a very able surgeon, in the East India Company's service, who was acquainted with the family, bled this young man freely, administered purgatives, and threw up injections. These failing, the assistance of the writer of this article was requested. The young man was still writhing with pain, yet the skin was cool, the pulse natural, and the tongue clean. Under these circumstances we considered the disease, in its then stage, as impacted *faeces* attended by spasm. A large dose of calomel, with two grains of opium, were ordered, and after a couple of hours, purgatives and enemata to be administered. The pain was lulled, and some trifling evacuations procured, but next day the symptoms were all *exasperated*, and now the pulse began to rise, and the tongue to become furred. Leeches were applied to the abdomen, with hot fomentations; and purgative enemata were thrown up, while cathartics of active quality but small in form, were administered by the mouth. These means failing, we again opened a vein, and bled to syncope. Immediately after this, the bowels gave way, and immense quantities of *faeces* were discharged, with instant relief of all the symptoms. Here, then, was spasm from accumulations in the colon. Venesection, calomel, opium, cathartics, numerous enemata, leeches, and fomentations failed. But symptoms of inflammation at length supervened—and then the venesection had all the effect which could be desired. This case may not be incapable of affording some useful practical reflections, and we leave it to our brethren for this purpose.

In conclusion, we may observe that we were rather disappointed in the perusal of this paper of Dr. Monro's (occupying 32 pages) seeing the high authority whence it emanates, and the distinguished situation in which it is placed by our respected cotemporary of the North. But we hope for a more important communication from the same pen, in one of the succeeding numbers of the same journal.

3. ON PERICARDITIS.—BY M. LOUIS.

Laennec, after most accurately describing the pathological characters of pericarditis, acknowledges that he has sometimes been right in his diagnosis respecting it, but that he knows of no certain mark by which to recognize so serious a disease in the living body. Any contribution

towards a more secure diagnosis must, therefore, be acceptable. Two cases of this disease, as carefully noted at LA CHARITÉ, by M. Louis, are published in the January Number of LA REVUE MÉDICALE, and of these we propose to give some account.

Case 1. A stone-mason, 27 years of age, of strong constitution, and who never had had any previous illness, was admitted into the CHARRÉ on the 11th August, 1825, having then been ill about a week, and confined to bed three days. The complaint had commenced, without any known cause, by acute pain in the left side of the chest, in the epigastrium, and between the shoulders, accompanied by dyspnoea, palpitations, and latterly by diarrhoea. The palpitations ceased on the third day, but the other symptoms continued, and cough was superadded. There had been no shiverings. Fifteen leeches had been applied to the epigastrium on the fourth day of his illness, but without any benefit. 12th, It was observed that there was some infiltration in the upper and lower extremities—face exhibiting some purplish tint—embarrassment in speech and muscular motion—great sense of debility—prominence without œdema, of the left side of the chest, but of a circumscribed kind—no respiratory murmur in this part, where pressure was painful, and percussion elicited no clear sound. The pulsations of the heart were not regular or distinct—pulse quick, small, feeble, and very irregular, as well as intermittent—jugular veins dilated—respiration rather quick—chest, except at the part abovementioned, sonorous on percussion. The patient did not complain of any particular affection, but only of general malaise. To be bled to ξxij .—lowest diet. When six ounces were abstracted the patient fainted. In the evening twenty leeches were applied to the precordial region. 13th, No alteration. A blister to the salient part of the chest. 14th, Somewhat less oppression, and the pulse rather more regular. The progress of the malady was slow but sure. He was very closely watched from this time till the 25th October, the date of his death, a space of more than two months, in which time the following circumstances, among others were noted. On the 10th August an erysipelas was developed around the blister, and spread in stripes to different parts of the chest. About this time the dyspnoea was sensibly augmented—the patient was obliged to lie with his head high, and frequently started up in the night. On the 15th September, when examined by auscultation it was found that no sound could be heard in two-thirds of the right side of the chest inferiorly—the state of the left side remaining the same. On the 9th October no sound by percussion or stethoscope, could be heard in the inferior and posterior half of either of the sides. The dyspnoea was always considerable—the decubitus difficult, and the pulse irregular, with some cough and sanguineous expectoration. The lower extremities were also more and more infiltrated. He died in this state on the 25th October.

Dissection. We shall pass over the appearances in the head and some other parts, as not essential to the pathology of the case. On raising the sternum, nothing but the pericardium could be seen, it ap-

pearing to occupy the greater part of the chest. It contained a pint and a half of reddish serum—was rough and unequal on its internal surface, resembling an orange in colour, and lined with a false membrane, a line in thickness, firmly adherent. The surface of the heart resembled the rind of a pine-apple, and was also covered with a false membrane, in some places from two to five lines in thickness. The heart itself was rather smaller than natural, and its orifices perfectly sound. The aorta and pulmonary artery presented nothing remarkable.

In the above case there is a perfect correspondence between the symptoms and the *post-mortem* changes. The diagnosis cannot, in such cases, be difficult.

Case 2. An unmarried woman, 47 years of age, was admitted into LA CHARITÉ (under M. Chomel) on the 19th October, 1824. After experiencing violent mental anxiety, and having made a journey on foot, of more than 500 miles, which she performed in twenty days, she was seized, all at once, two hours after arriving in Paris, with a sense of terrible constriction and lancinating pains in the centre of the chest. To these symptoms was added palpitation, which went off in three or four hours, and did not return for three days. The other symptoms continued, the sense of oppression daily increasing, as also the difficulty of lying down in bed. She had no head-ache, giddiness, lipothymia, thirst, heat, or shiverings. The appetite was completely gone—motions regular. She had some cough. Leeches had been applied to the chest, without any good effect. She walked, though very slowly, to the hospital. 20th October. This was the 26th day of the complaint. The countenance was sallow, and expressive of fatigue and malaise—decubitus difficilis—great oppression at the chest—pulse rather small, unequal, and irregular, varying from 68 to 80 in the minute—action of the heart unequal and tumultuous—chest sonorous throughout, except in the præcordial region, where the sound was dull for a considerable space, in which she complained of pain—occasional cough, with trifling expectoration—tongue white—anorexy—dreadful sense of tenderness when slightly pressed on the epigastrium—stools and urine natural. *Twenty leeches to the præcordial region—infusion of violets—lowest diet.* The following day presented no alteration; and from this time till the 1st November (the day of her death) the symptoms above-mentioned gradually increased in intensity—the oppression became extreme—the sense of suffocation imminent, especially in the night, compelling her to keep constantly upright. In this dreadful state the poor woman retained the perfect possession of her intellectual faculties—and, ten minutes before her death, she told M. Chomel that the resources of his art were at an end. Such were her sufferings!

Dissection. The lower extremities were observed to be considerably infiltrated. The pericardium appeared much distended, and contained a pint of reddish fluid. The heart was of moderate size, but completely covered with a false membrane, which did not extend to the internal surface of the pericardium. There was nothing remarkable in

the cavities, ostia, or great vessels of the heart. Some part of the right lung was slightly hepatised—the left, sound. There were some other morbid parts in the body, but evidently having nothing to do with the patient's death.

It is but rarely that we see examples like the above, of carditis or pericarditis, unaccompanied with inflammation of the pleura, lungs, or other organs, by which the symptoms are rendered more complicated. So far the cases detailed are valuable to those who wish to acquire accurate ideas of symptomatology. This last kind of knowledge is the most important of all. It is of every day application, and it is generally that which distinguishes the good from the bad physician. Symptomatology may do a great deal without the knowledge of morbid anatomy—as was seen among the ancients—but pathology cannot move a step in safety, without the assistance of symptomatology.

4. CASE OF DISTENDED BLADDER.

In the May number of the Repository is a case of great distension of the urinary bladder, by Mr. Thompson of Whitehaven, which, as it is rather rare, and certainly interesting, we shall notice here.

Mr. Baker had suffered long from complaint in his bowels, with progressive enlargement of the abdomen; the affection had come on insidiously, and his constitution had given way before it. October 11th, He was visited by Mr. Thompson to give an opinion as to the necessity of his being tapped. The symptoms were, dull pain and slight soreness on pressure, in the abdomen; a well defined swelling, reaching from the pubes to the cartilages of the ribs, having a sense of fluctuation; bowels irregular; motions generally white-coloured, at times streaked with blood; frequent desire to make water, passing, with difficulty, about a quart a day; low irritative fever; sleep disturbed; appetite gone; bilious hue, which, together with the pain in the abdomen, continued to increase. Conceiving this to be enlargement of the bladder, and apprehending scirrhus and enlarged prostate, Mr. T. directed the employment of the catheter, which, however, after repeated trials, he was told could not be introduced. An irritating application was applied to the abdomen, and a mixture of bals. peruv. tinct. digital. and vin. colchici given with anodyne mercurial pill at night. February 2nd, He died, and next day, in the presence of Messrs. Robinson, Fox, Wilkinson, and Thompson, the body was opened.

Dissection. On laying open the abdominal cavity, the peritoneum was found much thickened and very strongly attached to an oval body, which extended between the pubes and cartilages of the ribs filling the abdomen from side to side, and pressing up the intestines. This, when cleared of its diseased attachments and removed, was found to be the bladder, containing a gallon of urine, almost black; when quite full it held twelve pints. Its coats were much thickened; prostate gland greatly enlarged, pressing on and narrowing the urethra; anterior part

of the rectum of a scirrhus hardness. All these parts were highly vascular. To the external part of the bladder and prostate were attached, by minute pedicles, innumerable small bodies of a spherical shape; no such appearance on the internal surface of the viscus.

Liver smaller and harder than usual; the gall-bladder was double the natural size, and contained a quantity of very thick bile; the cystic duct at its origin, was as large as a Spanish nut, and of very fine texture: from this to its junction with the hepatic, it was impervious: the calibre of the ductus communis was much diminished. Other cavities not examined.

Remarks. The necessity of attending to the state of the bladder, observes our intelligent author, in cases of supposed ascites, is to be borne in mind, particularly when we recollect that even John Hunter punctured this viscus, and only discovered his mistake by tasting the urine. With regard to the thickening of the muscular fibres, in cases of great distension of the urinary organ, it is evident that it is a remedial process, for were it not to happen the bladder must inevitably burst. As to the question whether it be from disorganization that the bladder does not resume its functions when the distension is removed, we should be inclined to think that it is not. We should rather think that this arose partly from the want of the accustomed *stimulus* to action, namely the quantity and pressure of the contained fluid, but principally from loss of tone. Mr. T. seems to imagine that the spherical bodies found on the outside of the bladder, were composed of the triple phosphates, formed from the exudation of the urine through its coats. We cannot conceive this to be the case. There may be inflammation and sloughing and so the urine may get extravasated; but we confess we cannot make up our minds to its exudation. What the bodies in question were, we cannot say; that they were not formed as is supposed, we think we can.

5. M. GUILBERT ON LEECHING THE OS UTERI.*

Some discussion arose in this country, not long since, on the merit and on the priority of applying leeches to internal surfaces of the body;—but it would appear that this operation, like many others supposed to be novel, can be traced back to a considerable distance in the records of medicine. In respect to the application of leeches to the os uteri, M. Guilbert has been at the pains of proving that the measure which he recommends has been noticed long before his own time, and consequently that he is not the discoverer. Thus Stahl, in his *Memoir “de Utilitate Sanguisugarum,”* has quoted from Zacutus Lusitanus a

* *Considerations Pratiques sur certaines Affections de l’Uterus, en particulier sur la Phlegmasie Chronique, avec Engorgement du Col de cet Organe, et sur les Avantages de l’Application immediate des Sangues dans cette Maladie.* Par J. N. GUILBERT, M. D. Professeur de la Faculté de Médecine, &c. Paris, 8vo, 1826.

case where phrenitis took place from retention of the lochia, and where, all other means failing, four leeches were applied immediately to the uterus, and followed by a large discharge and complete relief. On examining the original work, M. Guilbert found that these were the words used:—"Quatuor hirudines filo appensas apponere gubeo, earum suctu secuta longa evacuatione, &c." He thinks, and not without reason, that this application was merely to the internal surface of the vagina, and not to the os uteri.

Afterwards, however, a physician of Ferrara, Jerome Negriscoli, repeated this operation, on a great number of occasions, and with great success, according to his own account. He published a small work on the subject, from which M. Guilbert has made some extracts. It is dated in 1665. In this case also, our author has pretty clearly shewn, the leeches were applied to the internal surface of the vagina, rather than to the orificium uteri. It is certain that, in the writings of Ambrose Paré, there is a passage, unequivocally expressing the cervix uteri as a part where leeches might be placed. "*Parcillement l'application des sangsues au col de la matrice est utile.*" Paré says he quotes from Sylvius, but M. Guilbert could find no such passage in the writings of the latter.

But as we never deemed it of very great importance whether an operation be quite new, provided it be useful, we shall come at once to M. Guilbert himself.

Every practitioner, he observes, must have remarked the frequency of chronic inflammations in the uterus, with engorgement of the cervix of that organ, and also the general inefficacy of the means usually employed to remove those affections. "I therefore," says he, "beg leave to propose a method of cure which I have found useful when all others had failed." Our author read a paper on this subject five years ago, before a learned society, and the accumulation of facts has now induced him to make the remedy still more public, through the medium of the press.

He remarks that chronic phlegmasia of the uterus are apt to occur from various causes, especially after child-birth. These phlegmasia occupy sometimes the entire of the uterus, but more frequently the cervix. Acute inflammation of this part is, of course, readily recognized by the practitioner; but when chronic, it is often concealed, through false modesty, by the patient, and the medical attendant is not aware of the existing malady—till progress has been made to an irremediable scirrhus or cancer of the womb. Some patients complain only of a sense of heat in the parts—others of pains—or a feeling of weight—or bearing down, as if they had a prolapsus uteri, for which pessaries are sometimes prescribed, which do more harm than good. Some females with this complaint consider that they have the menses too abundant—others that they are affected with leucorrhœa. Our author was called to a young lady who was merely supposed to have hysteria, but in whom he readily recognized phlogosis of the cervix uteri. By removing this affection the hysteria soon disappeared. The following case was among the first which led our author to the measure which is the subject of this paper.

Case. A young lady, whom M. Guilbert had attended previously to her marriage, for various complaints, chiefly of a nervous and erysipelatous character, was much harrassed during her first pregnancy, with attacks of circumscribed peritoneal inflammation about the lower part of the abdomen, which were relieved by local bleeding, fomentations, and the common means. At the time of her accouchement a new peritonitis was developed, and combated successfully by the same means; but the patient went out too soon after delivery, in a voiture, during cold weather, by which the inflammation was renewed, accompanied this time by marked metritis. The accoucheur (M. Gardien) was again called in, and prescribed the means formerly employed, with promptness and decision. The peritoneal inflammation was subdued, and that of the uterus much diminished; but, in spite of every measure, there continued an engorgement of the cervix uteri. M. Recamier was then called in consultation, and, on accurate examination, ascertained a phlogosed state of the posterior part of the os tinæ, which was prominent in the form of a small tumour that threatened to suppurate. Every means having been employed to dissipate this inflammation and engorgement, without success, M. Guilbert thought of the direct application of the leeches to the part inflamed, as a measure more likely to succeed than any other. M. Recamier agreed readily to the proposal, and a *speculum uteri* having been introduced, it was found quite easy to apply four leeches, through this instrument to the tumefied and inflamed part. Very little pain was experienced by the patient from the bites of the leeches; and M. Guilbert here remarks that the mucous membranes are much less sensible than the skin to this kind of irritation. The application was renewed some days afterwards, and though relief was obtained, the pains continued in the part affected. Ten leeches were now applied. By examination with the speculum, it was ascertained that the second leeching had much blanched the inflamed parts:—this third operation completely removed all pain, inflammation, engorgement, and tumour; so that, on exploration with the speculum, the parts appeared quite natural and healthy. The patient was thus completely cured in a very short space of time.

Since the period when this case was communicated to the Medical Society of Paris, our author has had many opportunities of reiterating the operation, and with much advantage.

M. Guilbert, however, judiciously advises that, before an application of this kind be made, the usual means should first be tried. General and local bleeding, with aperients, fomentations, and revulsives, should precede the direct application of leeches to the os uteri. Many cases, remarks, and extracts from older authors, are given by M. Guilbert, but we conceive that it is sufficient to point out this measure to our brethren, in the brief manner we have here adopted, leaving its merits and applicability to be determined by future experience. Judging from analogy, it is reasonable to suppose that the direct abstraction of blood from an internal organ would be more efficacious in arresting inflammation there, than when blood is drawn from vessels at a distance. There are but

few, if any, internal organs to which leeches could be applied, except the uterus—and even here there must be some difficulty, notwithstanding the statements of M. Guilbert. The greatest difficulty, however, in this country, would be the repugnance to the operation on the part of the patient—a repugnance, for obvious reasons, much less surmountable here than on the Continent. Still, in hospital practice, and even on many occasions in private life, the measure would be submitted to, if deemed necessary—and we cannot but think that instances are not unfrequent where leeching on inflamed or otherwise diseased cervix or os uteri might be of essential service in alleviating, if not curing, some of those terrible and painful diseases to which woman is, unfortunately, too prone, and for which our art is too barren of resources.

We need say nothing of the speculum which M. Guilbert uses, as the instrument constructed by Mr. Weiss is superior to any which can be procured in France.

6. IMPERFORATE ANUS.*

Mr. Hutchison observes that, so little has been written on the subject of imperforate anus, and so few cases recorded, while, at the same time, the lusus is more frequent than is generally supposed, that he deems it a duty to the profession to lay before them such observations as have occurred to him on this point of surgery, in the course of his public and private practice. We acknowledge the duty, and praise the laudable desire to fulfil it; but we cannot acquiesce in the statement that few cases of imperforate anus are on record. The periodical Journals of this and of other countries contain numerous cases of this congenital defect, and even professed memoirs have been written on the subject, of which we need only instance the "*Memoire sur les Enfants qui Naissent sans un Veritable Anus*," par M. Bertin, 4to. Paris, 1774. Hildanus, Scultetus, Petit, Van Swieten, and many others, have written, though not *ex professo*, on the same subject. We grant, however, that in the case which Mr. H. has particularly detailed, the extremity of the intestine was situated at a greater depth from the surface, than in any case of which we have read. To this then we shall immediately proceed, and afterwards make reference to some others scattered about in various works not very accessible to the generality

* Practical Observations in Surgery, &c. &c. (Second Edition considerably enlarged.) By A. COPLAND HUTCHISON, late Surgeon to the Royal Naval Hospital at Deal, &c. &c. &c. 8vo. 1826.

This new edition of Mr. Hutchison's work is much improved, as well as increased in the quantity of materials. We cannot review a second edition, but we can conscientiously state that every Naval and Military Surgeon, at least, should consider this volume as a necessary item in the list of his select and unavoidably restricted library. We have chosen the Chapter on "IMPERFORATE ANUS," for the present article of our Periscope, because it was not contained in the first edition, and because we are enabled to add some interesting particulars, from various other sources, to those presented by Mr. H. in the Chapter which he has dedicated to the subject in question.

of our readers. We may premise, however, that this was the fourth case which had occurred in Mr. Hutchison's practice, in the course of a few years. It is by far the most interesting of them all.

The child had been born 48 hours before the operation, which was performed in the presence of several medical gentlemen, on the 17th November, 1822. We shall give the operation in Mr. Hutchison's own words.

"The raphe was the only guide we had for the operation, there being neither hollow nor depression to mark the spot where Nature had failed in completing her design. Dr. Granville kindly assisted me (at the operation), by securing the child, and by keeping its lower extremities in a proper position during the operation, which was done by making an incision about an inch and a half in length with the scalpel, through the skin and fat, nearly as deep as the incision was long, but narrowing it two-thirds at its fundus. Not having reached the intestine with the scalpel, and considering that we could not so safely proceed further upwards in the direction of the gut with that instrument as with the trocar, the latter instrument was preferred, and directed gently upwards, backwards, and inclining to the direction of the sigmoid flexure of the colon for about an inch; when, on withdrawing the stilette, we found the intestine had not yet been reached: the stilette was therefore again passed through the canula, which was still kept in the parts, and pushed upwards half an inch farther, when, from a want of resistance, I suspected we had at length succeeded, and on withdrawing the stilette a second time, meconium flowed through the canula in considerable quantity; and here it was curious to witness the instinctive straining of the child to relieve itself for the first time, and which would suggest the advantage to be derived from the practice of gently irritating the external skin over the situation of the anus in such cases, with a view of ascertaining the probable distance of the gut from the surface, as before noticed; for, on this occasion, the contorted features of the infant were precisely those of an adult who was constipated, and straining to relieve himself.

"The canula was secured by tapes, and retained in the parts three days. It was then withdrawn, cleaned, and again introduced, the fæces passing through it during that period." 267.

After a week or ten days the canula was removed, and a sponge-tent introduced; but did not expand enough. A bougie was substituted, and found to answer better. By this instrument the distance of the gut from the external surface was ascertained to be exactly three inches. Occasional constipation took place, and was obviated by castor oil. Two months had now elapsed since the operation, when the mother was directed to introduce the bougie for a few hours only every day, and then Mr. H. took his leave. At the end of three months the mother brought the child to Mr. H. reporting that she had that morning observed, for the first time, that the urine was tinged with fæces. Yet the child fed well and thrived, till within six days of its death, which took place ten months after the operation.

On dissection, it was observed that the small intestines were all apparently on the left side, resting on the sigmoid flexure of the colon. The rectum was very large and distended with air. The lower part of this gut adhered to the bladder. The sphincter ani muscle was wasting. There was discovered a small valvular opening between the bladder and urethra, admitting only of the passage of thin faeces. The coats of the rectum were thickened, the muscular fibres being probably increased from the force required to project the faeces through the narrow canal leading from the termination of the gut to the external surface—a distance now of only one inch and a quarter. Mr. H. thinks, and with reason, that the lower part of the rectum had been, by its own muscular action, forced gradually down towards the external part, in the acts of stercoration, thus accounting for the shortening of the artificial canal since the operation. The substance through which the artificial anus passed was almost semicartilaginous.

This operation does great credit to Mr. Hutchison, though we are disposed to think that death was no great misfortune in the case of this child. Had the artificial canal still continued tight, and the parts through which it passed indurated, the patient's life must have been rendered miserable, and the gut above would have become greatly enlarged or diseased. On the other hand, had the artificial canal continued to shorten till at length the termination of the gut came close down to the external surface, the want of a sphincter ani would have been a terrible affliction, and rendered life a loathsome boon! Under whatever aspect then we view the case we believe that death was the best thing that could have happened.*

Since the foregoing case occurred, Mr. H. was called to another at Sheerness, where the gut was found completely closed about half an inch from the external opening. Mr. H. made an incision with the scalpel, of a proper length and depth, and then introduced a small-sized trocar, fully three inches; but no meconium passed. The patient died in a few hours afterwards, and it was found that the gut had been grazed but not penetrated. The rectum was found large and muscular, and pretty well filled. At the sigmoid flexure it passed immediately across and before the small bowels, "the upper part of the rectum rested on the cæcum, and then, turning from this situation, it passed down behind the bladder, and in close contact with it, and terminated in a cul de sac, only *one quarter of an inch* from the fundus of the *external cul de sac*, which arrested the progress of the bougie and probe." This was the precise state and position of the rectum in the other case already detailed. Mr. H. thinks it reasonable that this peculiar arrangement obtains in the majority of cases of imperforate anus, and that the practical conclusion to be drawn is, "that we must, in future, make

* Petit observes that where an operation is performed, and vent given to the faeces, if the sphincter be wanting, an artificial anus will be the consequence—"ce qui est un mal plus fâcheux que la mort n'est à cet âge." In this sentiment we entirely coincide.—*Ed.*

our external incision, and point the trocar, when that instrument is necessary, more forwards in the direction of the bladder, than as before described in this chapter." We conceive it to be dangerous to draw any conclusion of this kind from two cases, however coincident they may appear, on the points abovementioned.

Mr. Hutchison makes many judicious remarks on the *lusus naturæ* under consideration, several of which, however, have been made by preceding writers. He thinks the operation should be deferred till from 24 to 60 hours after birth, as no great inconvenience can arise within this period, and it is necessary that the rectum should be somewhat distended with meconium when the operation is performed, otherwise the instrument coming in contact with an empty gut, might divide two or three of its folds, and thereby occasion mischief. He thinks the distance of the gut from the exterior surface may be pretty nearly estimated by certain external appearances. Thus, where the usual hollow between the nates exists, and the natural situation of the anus is well marked by a depression, "the intestine will be in proportion near; and where these do not exist at all, the chances are that it is at some distance." He does not lay this down, however, as an infallible rule.

We shall now advert to the observations of some preceding writers on this imperfection. Bertin divides the *lusus* into four species, namely, 1st. Where the anus is obstructed by either a thin membrane or a more fleshy substance—2nd. Where the rectum is wanting, is not perforated through its whole extent, or terminates in one or two *cul de sacs* before reaching the external surface—3tio. Where the rectum terminates in the vagina, or bladder, or both, of the female.—4to. Where the gut terminates in the bladder of the male, or partly in the bladder, and partly in the usual place. A later continental writer makes seven species or varieties of imperforate anus, but they may almost all be comprehended in the above classification. In the first species, the infant's life may be saved, and a cure effected, if the aperture is made in time. If not, death generally takes place about the fifth or sixth day after birth. Nevertheless Hildanus performed the operation on the sixth day, with complete success. Ferrein saw an instance of life being protracted till the twelfth day, where there was entire imperforation of the anus. There is a species occasionally met with, where there is a very narrow passage in the natural situation, which will only permit the exit of *fæces* in a liquid state. Scultetus mentions a case where a stilet could hardly be introduced into the opening. The parents would not consent to an enlargement by the knife; but the object was obtained by tents.

That species where the occlusion is caused by a septum at some distance from the external orifice is the more dangerous, as it is sometimes undiscovered till too late. We may always suspect such a thing when laxatives fail to procure motions in the first day or two, and the infant appears in pain, and frequently straining. Many cases of this kind are on record.

There have been instances where this septum contained an aperture

in its centre, sufficient to give issue to liquid or soft faeces. A man was received into the Hôtel Dieu in the year 1816, who had experienced great difficulty, from his birth, in voiding his motions, which were always, when not liquid, moulded into a cylinder of very slender dimensions. He had a stercoraceous fistula in perineo. On examination with the finger, a septum was discovered crossing the rectum, with a hole exactly in its centre, that would just admit the point of the finger. M. Dupuytren immediately enlarged this opening by means of a bistoury. In thirty-eight days this man was discharged cured of both complaints. When the cul de sac is at a considerable distance upwards, a trocar must be used; but it has unfortunately happened that the opening made into the gut in this way, when in a state of distention from the meconium, did not correspond with the other part of the artificial passage, after the gut had been emptied—the consequence was, a faecal extravasation and death. This happened in the case of a child operated on by Sabatier, who died on the second day. A similar case occurred to Engersaud.

In cases similar to that detailed by Mr. Hutchison, some have succeeded, and others have failed after an operation. Saviard (obs. 5, p. 9) relates an instance where an infant was brought to him, without any external appearance of anus. He pushed in an abscess lancet in the direction of the gut, to the depth of three finger-breadths, when meconium issued along the side of the instrument. A tent was then introduced, and a passage effected for the faeces, with perfect success. An infant was lately brought to one of the most eminent surgeons of Paris, where no anus existed. An incision to the depth of two inches was made, but no rectum could be found. Next day the incision was carried deeper, but without success; and the child died. Here the trocar ought to have been used, as in Mr. Hutchison's case, and a farther chance of life given to the little sufferer. But even when the gut is reached by knife or trocar, and the meconium discharged, success does not always follow. J. L. Petit operated on an infant three days after birth, where no appearance of anus existed. The meconium was evacuated, but the child died in convulsions soon afterwards. In another case where he operated, he failed to reach the gut; but, three hours afterwards, a dark-coloured protrusion appeared in the wound, which was opened and gave vent to a quantity of meconium. The child was relieved, and lived till the eighth day, and then died. It was found on dissection, that the protrusion into the wound was a kind of hernia formed by a portion of gut pushed down during the violent strainings of the child. All the parts in the pelvis were in a state of gangrene. The same surgeon (Petit) operated on another child, first with the knife, and then with the trocar. The gut was perforated, and issue given to the faecal matters, but death ensued on the second day.

Callisen, in his system of surgery, cautions us, when we find it necessary to use the trocar, to first empty the bladder by a catheter, which should be kept in the urethra as a guide during the operation. This eminent surgeon carried the incision in one case, to the depth of two inches, and

succeeded in saving the life of the child. "Ad duos pollices, cum successu induximus, &c."

It is more than one hundred years since Littre proposed, in cases where an operation failed to reach the gut, to make an opening into the abdomen, in the iliac region, and establish an artificial anus in the colon. Strange and chimerical as this proposal may appear, it has actually been put into execution, and that too, with success, by M. Duret, surgeon to the Naval Hospital at Brest.* A child born without anus was presented to this surgeon. In the presence of several medical gentlemen he plunged a bistoury into the situation of the anus, and search was made for the gut, but without success. The child appeared doomed to death. The abdomen was distended, there was constant vomiting, and the extremities were getting cold. An incision was made over the sigmoid flexure of the colon, the gut secured to the edges of the wound by a silk thread, and an opening made into it. A large quantity of meconium issued. The symptoms were immediately mitigated, and the little infant recovered. It was seen twelve years afterwards at Brest, by M. Lassus, with an artificial anus in the situation above-mentioned. M. Pillor, of Rouen, has had similar success in a similar case.

There may doubtless exist a combination of *moral* circumstances which may render the preservation of life such a desirable object as to authorise the operation in question. But we much doubt whether the individual so rescued from death would have just cause to thank his deliverers in after-life. On this subject, however, we shall not dwell any longer.

When the rectum terminates in the bladder, it is almost always mortal, especially in boys. Yet Flagani reports a case where a child lived several months with this terrible lusus. The infant, when first seen by Flagani,† was four months old. It presented no trace of anus, and passed all faecal matters by the urethra. Yet the child appeared hearty and well. Sometimes the abdomen swelled very much, and the infant seemed to suffer. Three months more passed on in this way, when it was determined to try the effect of an operation. A trocar was, therefore, pushed into the usual site of the rectum, but only some drops of blood followed. The instrument was then plunged in still deeper, but with no better success. The child lived a month after this operation, being harrassed with great pain and suffering every time that faecal matters were attempted to be passed *per urethram*. On dissection, the intestines were found greatly distended, and filled with excrementitious matters. The rectum was three inches in length, and terminated in a narrow canal, four inches long, which, passing under the prostate gland, opened into the membranous part of the urethra. At this junction of the two organs was found a small cherry-stone, which the child had swallowed, and which had blocked up the passage for the faeces into the

* Recueil Periodique de la Societ  de M decine de Paris, tom. iv. p. 45.

† Osservazioni di Chirurgia, tom. iv, Obs. 39.

urethra. Morgagni, Bonetus, Desault and others have related examples of this kind of congenital defect.

When the rectum communicates with the vagina, as it sometimes does, and yet has an external orifice, attempts may be made to close the unnatural passage, by applying caustic, plugging the vagina, and enlarging the natural opening of the rectum by bougies. An instance is on record where a girl lived to the age of eight years, without any anus, the fæces passing all that time per vaginam. In these cases an operation, such as that practised by Mr. Hutchison, would bid fair to be successful, since the gut could not be at any great distance from the external surface. In such a case, a bent probe or other instrument could be passed into the communicating aperture, and the point of it pressed outwards to direct the incision.

Many curious cases of imperforate anus will be found in the second volume of *Chirurgical Pathology*, by M. Lassus, to which we refer the reader for further particulars.—In the English periodical journals are also scattered a considerable number of cases of this congenital defect.

We must now take leave of the subject, again repeating our conviction that Mr. Hutchison's volume contains a great deal of interesting matter, which the army and navy surgeon will do well to study, and refer to from time to time.

7. KIRRONOSIS.

A new medical journal, which promises to be of a superior character, is just established by some of the first medical men of Paris. The work is in quarto, and the first number contains about 100 pages. It is intended to come out every three months, under the name of *Répertoire Générale d'Anatomie et de Physiologie Pathologique, et de Clinique Chirurgicale, &c.*

Amongst the articles in the first number, is a short paper by J. F. Lobstein, of Strasbourg, on kirronosis. By this name the author distinguishes a remarkable affection of the foetus or embryo, in which the serous and transparent membranes acquire a bright yellow colour. It is an internal jaundice, affecting the arachnoid, the pleura, the pericardium, and the peritoneum, but leaving untouched the ordinary seats of icterus, as the skin and the cellular tissue. It was first noticed in an embryo of five months. The peritoneum, especially where lining the posterior part of the abdominal parietes, was of an intensely yellow colour—that investing the intestines was less coloured. There was no effusion into the cavity, and the viscera themselves were healthy. In a second embryo of the same age, the abdomen presented a similar appearance, but in this instance the yellow colour also existed in the pleura, the pericardium, the arachnoid and dura mater, and in the thyroid gland. Lobstein has subsequently not only met with the same affection in the human foetus, but has also had occasion to observe it in two embryo

foals. A more careful examination shewed that the brain, the spinal cord, and also the nerves, participated in the morbid appearance. The sympathetic nerves, in particular, were very conspicuous, in the form of yellow lines passing by the sides of the spinal column. The affected parts appeared to be somewhat swollen, being larger than the portions immediately above and below them. The colouring principle in kirronosis does not seem to depend on any infiltration, but to be inherent in the tissues themselves. No adventitious matter could be detected by the aid of the microscope, yet the medullary matter of the spinal cord appeared to consist of two substances, the one of a bright citron colour, in the form of very minute grains, imbedded in the other, which was white and semi-transparent, and of a pulpy consistence. Long maceration in water, or alcohol, produces no change in the colouring principle. In preparations which have been in spirit seventeen years, it remains perfectly fresh, except in those spots which have been directly exposed to the light, which are a little faded.

Professor Lobstein is undecided as to the cause of this singular appearance. Having seen it as early as the third month, he cannot attribute it to the bile, which is not secreted at that period.

Kirronosis must not be confounded with an icteritious affection, sometimes met with in the foetus, when produced at the full time, in which the cellular membrane is infiltrated with a yellow fluid. Lobstein relates a curious case of this kind, which co-existed with a complete disorganization of the cerebellum, the exterior of which was of a deep red, and formed a cyst of about the twelfth of an inch in thickness, containing a yellow albuminous matter, compared to an egg, after the yolk and white have been intimately mixed.

8. EXTRA-UTERINE PREGNANCY.

In the same number is an article by Breschet, on a particular form of extra-uterine pregnancy, which the author considers as new.* He remarks that three forms of extra-uterine pregnancy are at present admitted, viz. 1st. *Graviditas abdominalis*. 2nd. *Graviditas tubaria*, and 3rd. *Graviditas ovaria*. To these he proposes to add, 4th. *Graviditas in substantia uteri*, or *graviditas interstitialis*. He forms this new division on the authority of seven cases, of which he has published the description, accompanied with plates of four of them.

The first case occurred in June, 1823, in the practice of M. Belleman, physician to one of the dispensaries in Paris. The patient, who considered herself to be three months advanced in pregnancy complained of great pain in the hypogastric region, and extending to the rectum. Her

* This form he has described in the 13th volume of the *Medico-Chirurgical Transactions*; but, as we did not analyze his paper at the time, we shall take some notice of this species of extra-uterine pregnancy in this place, together with the commentaries of M. Geoffroy St. Hilaire, who was appointed by the Academy of Sciences to report upon it.—*Ed.*

countenance was pale, and her pulse small. She could retain nothing on her stomach, and had frequent syncope. These symptoms, which were attributed to peritonitis, resisted the means employed to relieve them, and the patient expired the following day. On inspection, a considerable quantity of blood was found diffused in the pelvis. The uterus, which was considerably enlarged, presented at its fundus and a little to the left, a rupture, in which the peritoneal coat participated. This opening gave exit to a fetus enveloped in its membranes, but did not communicate with the cavity of the uterus, which, as in other cases of extra-uterine pregnancy, contained traces of a decidua. The parietes of the organ were upwards of an inch in thickness. The cavity which had enclosed the fetus, was situated in its substance. It was about the size of a small egg, and was not lined by membrane. Its walls were thickest towards the uterine cavity, but even on the outer side they were derived from the structure of the uterus itself, as well as from the peritoneum. A fact decidedly opposed to those authors, who suppose that in cases of this kind, the ovum has slipped between the peritoneum and the uterus. There was no regular placenta, but the vessels of the chorion formed cotyledons, of which the filaments were implanted in the uterus. The ovaria were healthy. The right fallopian tube was half obliterated, and the left completely so.

The second example fell under the notice of the late Dr. Albers, who appears to have had the intention of sending to the Medico-Chirurgical Society of London, a description of the case, together with that of another, of which he had purchased the preparation. His death prevented the execution of this design.

Two other cases stand on record, the one in the first vol. of the Academy Josephine of Vienna, the other in the Archives of Horn. Two more which the author of the paper has related, appear to have occurred in the hospitals of Paris. The description of the first is taken from one of the Medical Journals, and its value is somewhat impaired by the author of the article having apparently misunderstood the case. The second is minutely detailed by M. Dance, who attended the patient in the Hôtel Dieu.

These cases all proved fatal from rupture of the uterus, and, with but one exception, this event took place at an early period of gestation. In all, the cavity containing the fetus was situated near to the extremity of one of the fallopian tubes, which was invariably obliterated in at least a part of its course. In some there was a regular placenta, in others it was divided into cotyledons. The decidua was formed in the cavity of the uterus, and although the embryo had not descended into it, its dimensions were increased, and its parietes thickened. The author suggests various modes of accounting for this *graviditas in uteri substantiâ*, but whilst he admits that they are not all equally plausible, he refrains from so far committing himself, as decidedly to adopt any one of them.

The memoir from which the preceding extracts are taken, was read to the Academy of Sciences, and Geoffroy St. Hilaire having been

appointed to revise it, brought in a report, in which he states his own views of the subject. Calling in to his assistance the doctrine of analogies, to which he has long devoted so much attention, he finds no difficulty in arriving at an explanation, which appears to be perfectly satisfactory to himself. Now, though we have no hesitation in expressing our conviction, that the theory of analogies, by affording the means of combining detached and scattered anatomical and physiological facts, renders a most important service to this branch of science, we are also aware that it opens a wide door to the imagination, and feel bound to hesitate before we admit the explanations which it offers.

In a future number, we may possibly have occasion to offer some remarks on the specious doctrine of the unity of formation. For the present we shall content ourselves with giving a short sketch of Geoffroy St. Hilaire's views of the cases before us.

He is not only opposed to the admission of a fourth variety of extra-uterine pregnancy, but thinks that the cases before noticed, as well as the three varieties acknowledged by the authors, who had previously treated of these subjects, are to be referred to one head. Judging, as it would seem, of the human embryo, by what happens with that of oviparous animals, he does not allow that any thing like fecundation, or development of an embryo, can take place, without the ovulum, which corresponds to the yolk, having previously acquired its different concentric coats of albuminous matter, and assumed the state of ovum, for which purpose it must first have traversed the fallopian tubes, and arrived in the corresponding turn of the uterus, or the *ad uterum*, the name which he gives to that part, which in the human he regards as analogous to the cornu of the uterus. In the foetus traces of the uterine turns may often be distinctly made out, so as to indicate the analogy between the human uterus, and that of the inferior mammalia, and cases are not wanting in which this resemblance has become permanent, and been found in the adult.

Geoffroy St. Hilaire has taken advantage of these facts to support him in distinguishing as a special organ, the *ad uterum*, or that portion of the fallopian tube next to the uterus. He speaks of it as a part *sui generis*, constituting an essential appendage to the uterine system. He thinks the cases collected by Breschet are attributable to this part having either retained its foetal development, or reproduced it under the influence of gestation, and thus afforded a receptacle, in which the ovum continued its growth, whilst the passage designed for it has become obliterated. He explains the cases of reputed *graviditas tubaria*, by supposing a retrograde movement of the ovum, when it has attained too large a size to remain in the *ad uterum*, and is shut out from the uterus. He states that the ovum may return to the surface of the ovary though no development of a vesicle can take place whilst it remains in that organ. It appears to us that the love of analogies has induced the learned Professor to attach too much importance to the accessions which the human ovum may receive, whilst in transitu from the ovary to the uterus.

The ova of birds in their passage through the oviducts are by various additions, prepared for being placed in those conditions, which are essential to the development of the embryos which they contain. Cut off, during the whole period of incubation, from every supply of nutriment, except that within themselves, it is needful that the store of this should be considerable, hence the large size of the yolks, compared with the ovula of the mammalia. The vital process cannot be maintained, through the indirect influence of the atmosphere on the blood of the parent. These ova must, therefore, be adapted to receive its more immediate influence, which they do through the porous texture of their envelopes, but as this arrangement allows of considerable loss by evaporation, ample provision is made against it in the watery part of the albuminous coverings which are superadded in the oviduct. In the lower part of this canal are also added the shells, by which the tender embryos with their appendages are protected from accidents and risks, to which the young of the mammalia, at a corresponding period of their existence, are not exposed. Even when the young bird has quitted the shell it still derives a part of its sustenance from the animalized matter which was supplied by its parent, in the form of yolk, and which in part remaining after the period of incubation has been completed, is taken up into the abdomen of the chick.

When we reflect on these essential differences between the development of the embryo in birds, and in the mammalia, and consider that Nature never gives herself needless trouble, we cannot but doubt the propriety of forcing an analogy between the passage of the egg, in the one case, through the oviduct, and in the other, through the fallopian tube to the uterus.

We do not deny that the human ovum in its course to the uterus may acquire some addition from the secretion of the mucous lining of the fallopian tube, but we suspect that it is of comparatively little importance, and confess that we are still inclined to retain the old opinion respecting extra-uterine pregnancies, rather than admit a retrograde movement of the ovum, especially when it has had time to attain considerable increase of size, as in the case supposed by Geoffroy St. Hilaire. To say nothing of the restraint opposed to such movement, by the attachments of the placenta, or cotyledons, it would seem incredible that when the ovum can no longer be contained in that part of the tube which has been gradually dilated under its progressive growth, it should be able to slip through the unaltered part of that tube, which was only destined to give it passage in its earliest stage.

The fact that the traces of analogous structures in this part, which are observable in the fetus, are, in most cases quickly obliterated, militates strongly against the importance which Geoffroy attributes to the ad uterum. Had it been well founded, the form of extra-uterine pregnancy noticed by Breechet, instead of being one of extreme rarity, ought, on the contrary, from the predisposition of the parts, to have been of frequent occurrence. We borrow another objection to Geoffroy's explanation, from the reasoning which he has himself employed in the

present report. When, as in the case before us, we are examining a product of organization, at a period remote from its first formation, we are liable to see a sum of effects, unexplained by the actual state of the various parts, because dependent on the series of conditions which have gone before. There has been a continuous chain of transmutations, A producing B, and B producing C, and so on, until the final result may exhibit no traces of the type which formed its basis: Hence it is that analogies of structure in different animals, are most conspicuous in the first periods of their existence, the specific and individual peculiarities being produced and confirmed in the subsequent development. When the uterus becomes the subject of increased nutrition, in correspondence with the development of an embryo, we recognise the influence of a special cause, the effects of which may be modified by accidental circumstances, but cannot philosophically be supposed to be complicated by the operation of another cause, whose influence, as exhibited in the production of analogies, belongs to a totally different period of the individual's existence.

If we were to hazard an opinion respecting the cases of extra-uterine pregnancy, which form the subject of the two papers we have been examining, it would be that the passage of the ovum through the fallopian tube, a process known to occupy several hours, had not been effected before the formation of the decidua had closed the openings into the uterine cavity. The ovum having descended as far as this obstruction would permit, and formed those connexions which are necessary for its development, would dilate that part of the tube in which it was placed, at the expense of the adjacent parts. It is perhaps not impossible that, by this means, some of the fibres, which are most distinct at this part of the uterus, and constitute the *musculus orbicularis Ruysschii*, may be separated. The cavity containing the ovum would then be distended most readily in this direction, till at length the embryo would appear to be lodged in the substance of the uterus.

9. EXTRACT OF GARDEN LETTUCE.

The extract of garden lettuce, the lactucarium of the Edinburgh Pharmacopœia, has already been long known in this country, as affording, in some cases, a valuable substitute for opium. Dr. François, who has chosen to give to this substance the name of *lithridace*, has just published some observations which tend to support the favourable opinion entertained respecting it, by some of our northern medical brethren. Dr. F. ascribes to it the power of allaying pain, of producing sleep, of diminishing the too frequent action of the heart, and of repressing inordinate heat, without producing the unpleasant effects of opium. He also praises it as an anti-phrodisiac. The dose which he gives, is from eight to ten grains.

Another plant of the same family, the *lactuca virosa*, has found an advocate in Dr. Thorle, who has employed it with success in hydrotho-

rax, but as he has given it in conjunction with digitalis, it is not easy to determine how much of his praise really belongs to the lactuca.

10. DR. LOUIS' DIAGNOSIS OF PERICARDITIS.*

Dr. Louis, from the observation of thirty two cases of acute pericarditis, has been led to the opinion, that this affection, which Laennec and most other pathologists have regarded as one which presents the greatest difficulty in its diagnosis, may, when free from complication, be detected with almost the same facility as the plainest case of pleuritis. He offers the following as the symptoms which characterise it.

Pain in the region of the heart, sometimes extending to the back and epigastrium, very sudden in its attack, and in many cases, though not constantly, attended with palpitations. Irregularity and intermission of the pulse, and a dull sound yielded by that part of the chest which corresponds to the situation of the heart, whilst it is elsewhere naturally resonant. These symptoms are sometimes accompanied with syncope, and occasionally with cedema of the extremities. Dr. Louis lays particular stress on the absence of sound in the region of the heart. Although we are disposed to pay great respect to the opinion of one who stands so high as Dr. Louis deservedly does, as a patient and accurate observer of disease, yet, we cannot help thinking that pericarditis may frequently exist when this symptom is wanting. When present, it must depend on fluid in the pericardium, and, as this effusion is the effect, rather than the cause of the disease, it is reasonable to conclude, that the early and most important stage, must be passed before the symptom in question can be unequivocally developed. In some cases, when the inflammation has been very considerable, the quantity of fluid found on examination, has been very trifling, and instances are not wanting, although they must be regarded as rare, in which the pericardium, from a suspension of its proper secretion, has been seen morbidly dry. Another symptom said to indicate the existence of pericarditis, is a peculiar sound accompanying the contractions of the heart. It has been particularly noticed by Dr. Collin, who describes it as resembling the noise produced by the bending of new leather.

In a case of acute pericarditis, which, not long since, fell under our notice, the natural sound of the contractions of the heart was considerably perverted, though not so as to suggest the simile offered by Dr. Collin. It is highly probable that, in most instances, the sound may be modified, but the varieties in the quality, as well as the extent of the inflammatory products, are likely to subject it to almost infinite variations.

11. ON THE FREQUENT OCCURRENCE OF THE LOSS OF THE NOSE IN RUSSIA.

On a hasty glance at those authors who have written on the general

* This may be considered as a sequel to No. 3, p. 504, of this *Periscope*.
—Rev.

state of health in Russia, one is immediately struck with the frequent occurrence of the loss of the nose. VON BESSARABSKY, who has now a work in the press on this subject, sent a part of the manuscript copy to Dr. Edward Graefe, of Berlin, which, with the permission of the author, was inserted in the *Journal für Chirurgie*, from which we extract the following passage.

“ Although the venereal disease has for some time past very much diminished in the Ukraine, although it is almost entirely banished from the peasantry, and only prevails in the towns, among the country nobility and the Israelites, yet its ravages are sufficiently important to merit a few observations. The raging, irrational, and almost brutal lasciviousness, with which the Polish Jews are upbraided, which may partly arise from their stimulating high-seasoned diet, is assigned as the reason why this horrible disease is found in its most varied forms, and with such frequency among that people. Syphilis is there extraordinarily obstinate and destructive; venereal ulcers extend themselves over the whole body, even over the face. As Storch very justly remarked in the last century, there is perhaps no country in Europe in which venereal ulcers of the nose so frequently occur, and no land in which one observes so many people without noses as in Poland. In Siberia, the loss of the nose is found equally frequent, indeed much more frequent, even than in Volhynia and Podolia. That the low temperature of that region may be partially the cause is very probable, but that it must also happen from mismanagement of the syphilitic inflammation attacking this part is equally so; as it is found that at Petersburg, where the winter is not at all milder, such cases are not near so frequent. As yet, as far as we know, no attempt has been made systematically to examine into the subject, and it is very desirable that such an examination should be made.”

GMELIN, who made a tour through Siberia in 1750, observes, that he never saw so many people without noses as in the neighbourhood of Tobolski; and he found that the venereal disease was sadly mistreated among the people.* Out of 100 recruits brought out of the Ukraine in the latter part of the last century, 80 were found to have syphilis. Baron Bessarabskey's forthcoming work will be entitled “ *Nachrichten über Podolien, Bessarabien und die Bukowinan* ;” a work from which we expect much interesting information.

12. VAGITUS UTERINUS.

A lady, about thirty-four years of age, was, in April, 1824, delivered of a fine grown child. The pains, which at first set in very strong, became in the course of twenty-four hours very ineffectual; the intervals between the pains were long, and the labour made little or no progress for two days. The principal accoucheur of the neighbourhood was called, who almost immediately used the forceps to bring

* See *Gmelin's Reise durch Siberien*, Gottingen, 1751.

down the head of the child, which had a natural presentation. After the first blade had been introduced, the position of the head was altered a little, and the child gave, at that instant, although quite within the uterus a distinct cry, audible not only to the operator, but also to all the persons standing by. In a quarter of an hour after the child was delivered.—*Rust's Magazin für die gesammte Heilkunde*, 1825, XIX. Band, 2tes. Heft.

13. PERIODICAL APHONIA.

A young woman pregnant for the second time had, from the fifth month of her pregnancy, been frequently the subject of a temporary loss of voice. Preparatory to such aphonia, the patient complained of a weight and uneasiness similar to that produced by the aura epileptica, and, after an hour, somewhat like an aura proceeded from the feet to the neck, and the loss of speech followed; the patient however preserved the most undisturbed self-possession and consciousness. The countenance, during the continuance of the aphony, preserved its regular appearance; no spasm of the muscles or any other disturbance—pronunciation was alone prevented. The circulation, the respiration, and all the other functions were perfectly regular, &c. At each attack, a vein was opened in the foot, from which the patient invariably obtained relief, and she could tell by a peculiar feeling when blood enough had escaped. She had, namely, a sensation as if a heavy weight pressed upon her breast, scarcely was the bandage laid on before she felt better, and the power of speaking almost immediately returned. An attack of this kind returned several times during the gestation at an interval of fourteen days, and was always removed by the same treatment. The patient was eventually delivered of a full grown healthy child, since which time she has had no return of the affection, nor any epileptical or spasmodic symptoms.—*Rust's Magazin für die gesammte Heilkunde*, 1825.

14. HISTORY OF A PREGNANCY, WHICH ENDED IN THE DISCHARGE OF THE FETUS THROUGH AN ABSCESS IN THE UMBILICAL REGION, WITH AFTER-PROTRUSION OF THE INTESTINES, AND FORMATION OF AN ARTIFICIAL ANUS.

The following history of a very curious and exceedingly rare pathological process was communicated to the much respected editor of the Journal, which in this number we have often had occasion to name, (*Rust's Magazin für die gesammte Heilkunde*) by Dr. WENZ of Thorn, who collected the particulars of the case from the most authentic sources.

Gorecka, a Polish peasant's wife, residing at Orzectrowo, a village about three miles distant from Thorn, now about 47 years of age, was, in the year 1807, pregnant with her tenth child. She passed through the pregnancy without any thing particular occurring, the labour com-

menstruated at the expected time; the pains were regular and strong, and the membranes broke early. The labour, however, did not go on, and after violent and repeated efforts, the patient felt as if something had suddenly burst internally, and, at the same time, a small quantity of blood was discharged from the vagina. The labour pains ceased, and in this state a physician was sent for from Thorn, who having made the necessary examination, gave it as his opinion, that the child was adhering to some part of the abdomen, and that the woman could not be delivered. This person appears to have been a quack, as his name was unknown to the regular practitioner of the neighbourhood. In this state of obscurity the case was left, and the poor woman resigned herself to her fate. The motions of the child, which had been before very distinct, had, according to the account of the patient, ceased at the time of the accident before mentioned; she was obliged to lie in bed; the tumour of the abdomen, which was very hard, began in a few days to be painful, and produced a circumscribed swelling in the belly, which gradually burst in the umbilical region. The minutiae of the case are not easy to collect, but it appears that no farther medical aid was sought for; that the suppuration went on, and that the husband became the surgeon and daily dressed the wound, cleaned it from the copious discharge of matter, and eventually drew out several pieces of bone as they appeared in the wound. The memory of the patient could not furnish the information whether any portion of intestine was pulled out in the attempts made to extricate the pieces of bone, or whether a portion of the intestines protruded through an opening left in the part after all the remains of the foetus had been discharged, or if the intestine had come through by any unusual effort after the wound had entirely cicatrized. She said, however, that a piece of the intestine came through and afterwards increased in size, that it opened and discharged faeces; that the discharge per anum began to diminish as the unnatural outlet enlarged itself, and after a time entirely ceased.

We come now to a more satisfactory part of the case as described by Dr. Weese from actual observation. In the middle point of the abdomen, in which every trace of the umbilicus is lost as well as the usual rotundity of the part, is a circumscribed, irregular, and somewhat circular projection, with sharply defined edges, from between which wound two separated portions of prolapsed intestine protrude; the greater turns downwards from left to right, describing almost the figure of an Italic s. The plate which accompanies the description of the present state of the patient shows that the prolapsed intestines are of a bright red colour, and the edges of each portion of intestine appear to have coalesced with the surrounding skin, so that there is no distinct separation between them. The peristaltic motion of the intestine was, on several occasions, distinctly observed by Dr. Weese, and, he remarks, that the outer coat of the intestine was much altered in texture, so that it appeared like the newly-formed skin of a cicatrix. The larger piece of intestine measured fourteen inches and six lines (Prussian measure) in length, and the other ten; each piece was in several places from two

to three inches in breadth. They both appear to come out of the abdomen at a common opening, and each of them is furnished with an opening large enough to admit of the finger being introduced into their cavities. The exit of the fecal matter is easy, and generally comes out in small quantities, which are received on pieces of cloth. The only support or protection afforded to the part is made by folding a piece of coarse sackcloth over it, and applying a moderate compress of the same material above. The patient has lived fifteen years with this frightful protrusion, and has, during the greatest part of the time, enjoyed good health. She not only is able to attend to the affairs of her house, but also to work in the garden, and was seen by Dr. Weese busily engaged digging the ground for potatoes. She had, up to the preceding year, regularly menstruated, and was, even to the time of the drawing up of this case, in good health.

15. THE HUNGER-CURE; AN ACCOUNT OF TWO CASES IN WHICH IT WAS SUCCESSFULLY EMPLOYED.

Dr. Sattinger, in Kotten, has published two cases in which he used the hunger-cure with success. The first case was that of a girl about thirteen, tall, but not well shaped. In her seventh year, she had, for the first time, scrofulous ulcers and caries, which, from having appeared in various parts of the body, very much disfigured her person. The one arm was shorter than the other and bent; the left eye-lid was shortened by a large cicatrix, so that she could not cover the surface of the eye. For about two years the girl was pretty well, but at the end of that time, a sore broke out on the edge of the hard palate which soon affected the bone, and extended far into the nostril, by which the inferior spongy bone soon became carious also. All the usually recommended anti-scrofulous medicines were tried without any avail, bark, iron, mineral acids, baths, and so on. Mercury was also given to salivation, but did not stop the progress of the disease. Several holes had formed in the palate, and the stench of the discharge was horribly offensive. On account of the inertness of the former plans of procedure, the hunger-cure, without mercurial friction, was proposed, modified a little to meet the circumstances of the patient. The process was managed in the following manner. Three times in the day, at nine, twelve, and five, was a small plate of milk gruel allowed, but not sufficient to satisfy the appetite; for the ordinary drink, the decoction of the woods was given, and mornings and evenings, four six-grain pills of the *extractum ciculae*, with the powder, were prescribed. All other sustenance was most strictly forbidden. The success surpassed expectation. After a few weeks, the ulcers had lost their unpleasant smell; their edges began to look clean; the matter ceased to be discharged from the nose, and, after eight months more, all the sores completely healed and cicatrized. A small opening only remained in the palate. The patient remained for several months after quite well, but has not as yet menstruated.

Case 2. A second case, in which the same plan of treatment was observed, was quite successful. This patient was also a girl, but of a full plethoric habit. She had for many years a severe and obstinate eruption on the face, but particularly on the nose and upper lip, where an ulcer formed, which began to assume a malignant character. The usual treatment employed in such cases was tried without any benefit. The same allowance was given to this girl as to the former, and the same medicine, which, after five weeks, ended in a complete cure. — *Rust's Magazin für die gesammte Heilkunde.*

16. CASE IN WHICH A NUMBER OF LIVING WORMS WERE VOIDED FROM A CHILD'S BLADDER.

A child, two years of age, who had been for a long time sickly, became very much emaciated and subject to sudden spasms in the bowels, without the practitioner's being able to discover the cause of the ailment. Some Vienna drink was given to the child, under a supposition that the mesenteric glands were enlarged. A soap liniment was directed, at the same time, to be rubbed on the back and belly, and a solution of the acetate of potash was given in marshmallow tea. Two days after this treatment was adopted, the father perceived in the child's urine four living worms, which, for some little time, appeared very active and then died. The next day more were discharged, they were then examined by the physician who attended the child, and he describes them to be very much like the larvæ of the common meat fly. There were two dark-coloured spots on the head; the tip of the tail of each larva was also dark. Their usual length was from four to five lines long, and breadth one. These worms continued to be discharged for twenty-one days, in a greater or less number daily, and it was found that their expulsion was assisted by giving the child pretty strong doses of camphor mixture. — *Rust's Magazin.*

17. PROSOPALGIE* CURED BY CAUSTIC.†

The following case obstinately resisted the combined influences of the whole class of narcotics, blisters, and metallic oxyds, with which the patient was vigorously treated for eight months. If further experiments should confirm the utility of the caustic, it will prove a valuable addition to our therapeia.

Madame N. had, during three years, suffered at certain intervals a violent pain in the face. At first the pain returned only once in the month, but, in the last year, it renewed its attacks, and these very violently, every week. The pain, in each of the paroxysms, pursued a regular course without any warning or precursory symptoms; it commenced in the lower jaw, as if many burning needles were stuck into the neighbourhood of the part in which the *nervus maxillarius inferior*

* From *Πρόσωπον*, *facies* and *Αλγος dolor*. — *Ed.*

† *Journal der praktischen Heilkunde*: November.

emerge from the *foramen mentale*. This violent pricking pain darted like lightning over the right half of the lower jaw, upper jaw, cheek, and extended to the upper and lower eye-lid of the right side. The left half of the face remained quite free from pain. With the extension of the pain over these parts, its intensity momentarily increased to a very high degree; the least motion of the parts made the pain, if possible, still worse. After this paroxysm had continued four, six, eight, and even sometimes twelve hours, it began gradually to subside from the periphery to the point from which it commenced, so that the last trace of pain was felt in the right mental foramen.

Between the angle of the lower jaw and mastoid process of the temporal bone of the right side, a plaster was put on, in which a small opening of about the size of a half silver groeche,* was made, and a paste of the lapis causticus introduced. This was secured in the usual manner and allowed to remain three quarters of an hour. When the eschar was thrown off, a pea was put into the hollow to keep up the suppuration. The reason of the practitioner applying his caustic to this part was, that he might immediately act upon those branches of the *p. auricularis* which accompany the *nervus alveolaris inferior* to the mental foramen. Three days after the application of the caustic, a violent paroxysm of pain returned, during which the patient was so unmanageable that she tore off all the applications to the part, so that it became necessary to encourage the suppuration by the use of the mercurion powder. During the two following weeks, two mild paroxysms returned, which continued only a half minute. Since that time to the present, (about nine months) the complaint is so diminished that the patient feels only now and then, when the weather is damp or rainy, a trifling uneasy sensation in the cheek, which remains only for a moment.

At the conclusion of this case HUFELAND makes the following remark —I cannot allow this opportunity to go by without observing, that I have many times found that counter-irritants and issues, applied in the space which lies between the flap of the ear and the mastoid process, have been the most effective in chronic cases of ophthalmia and for pains in the ear, teeth, and head; and I am quite satisfied that a small issue or irritated surface does more good in this situation than large ones elsewhere, as, for example, in the neck and temples.

18. CONCEPTIO EXTRA-UTERINA.†

DR. STEPHANY, of Frankenstein, has, in the Reports cited below, described the following case of extra-uterine pregnancy.

The wife of the peasant Franz Rimplen, at Landel, 43 years of age, the mother of three sons, with each of whom she had easy labour, be-

* Half as large as our sixpence.

† *Miscellen Frenschlecher gerats aus den vierteljahrigen Sanit. Mittheilungen.*

came pregnant about Michaelmas, 1815, for the last time. She expected to be confined about midsummer, and during her pregnancy continued to enjoy good health. Three weeks, however, before the time of her expected confinement, she leaped over a ditch, and heard, in the act of doing so, a loud crack in her abdomen; this was almost immediately followed by discharge of blood and general uneasiness. During the hæmorrhage, which continued about 14 days, the belly gradually lost its regular rotundity, and there formed gradually in the right side a round hard tumour which occasioned pain on every motion. Notwithstanding this, she is said to have enjoyed pretty good health until the September of 1822, when she was attacked by fever, followed by great depression of strength; and, in October of the same year, some portions of bone were discharged by the anus. The patient gradually became worse and in the month of July, 1823, she died. Dr. Stephany was called to her a few weeks before her death, after many other physicians and surgeons had been consulted. He found the patient in a state of great debility, with considerable irritation, fever and pain; he instituted an examination, per anum, and discovered in the upper part of the intestinum rectum an opening through which, or in which, a piece of bone could be felt. The pieces of bone which had been in this manner, from time to time voided, were collected by Dr. Wenzel, and shown to Dr. Stephany; they were the bones of a foetus almost full grown, and very discoloured.

Inspectio Cadaveris. The examination of the body, which was made in the presence of several physicians, gave the following results:—The abdomen externally, appeared quite natural; the whole body was much emaciated. The viscera were found in their natural situation; but the intestines were much inflated. The upper surface of the liver was united to the cartilages of the ribs, and the under surface was adherent to the stomach. The colon on the right side was much distended, and, on the left, thickened, and for about two inches in length, very much drawn together. The *vasa meseraica* were filled with blood, the mesentery itself unnaturally thickened and adherent in many places to the surface of the intestines. The stomach small and contracted, the descending colon a little distended and united to the spleen, and, from that place to the rectum it was fast drawn together. The cæcum was firmly united to the rectum. In one of the deep convolutions of the colon was a sac-like, distinctly defined swelling, with all the surrounding parts firmly connected, and about fifteen inches from the end of the ileum. Its outer surface was of the natural colour, the inner, speckled. It contained the remaining portions of the three broad bones of the cranium, these were, for the most part, of a horny texture, of a black colour, and the edges were very much thinned and corroded. This sacciform swelling extended itself posteriorly to the rectum with which it communicated by the opening before named, through which the finger could be readily passed into that intestine, both upwards and downwards. The *tuba* and the *ovarium* on the left side were quite na-

tural; the tube on the right side much enlarged, hardened, and degenerated; the orificium *uteri internum* closed; the right ovary was also destroyed, and, on the inner side of the fallopian tube, were here and there several pieces of bone. The uterus was in every respect healthy: but the os sacrum was, on its internal surface, in a carious state.

19. CUTANEOUS MEDICATION.*

We often choose to gather our honey among thorns that prick us pretty sharply. The pleasures of the table are not unfrequently alloyed by the bitter task of swallowing drugs afterwards—and the stomach is the organ which pays the penalty of its own pampering. This is a specimen of that retributive justice which Nature seldom fails to administer, when her laws are violated. Man, however, is always exciting his ingenuity to evade the penalties of the law, whoever may be the legislator. Dr. Lesieur has proposed to transfer the disagreeable duty of taking physic, from the stomach to the skin—the latter organ being far less fastidious in its tastes and antipathies than the former. This will be glorious news for the gourmands, and must make Dr. Kitchener's heart rejoice! We apprehend, however, that the "*Medication Endermique*" will not prove quite so palatable to the practitioner as to the patient. The mouths of the cutaneous absorbents, though numerous, are not of calibre to admit the "*quantum suff.*" of pills, powders, and potions, according to the present system of medical remuneration. But as that system is about to undergo a parliamentary investigation, we hope the Honourable Member for Aberdeen will be prepared with an accurate calculation of the immense saving which must result to the nation, in phials, corks, and pill-boxes, by the new or *endermic* practice of physic.

Seriously, we do not anticipate, with M. Lesieur and the commission who are ordered to test his experiments, that cutaneous medication can ever be carried to any great extent. The absorbents on the surface are very uncertain agents. We can, it is true, impregnate the system by mercurial inunction, or lull the sensibilities of the nerves by opiate frictions;—but we may rub in whole ounces of emetic tartar on the skin without producing the least disposition to sickness of the stomach. The author of the endermic system was aware of this, and therefore is obliged to apply his remedies through the medium of a *blistered surface*—a condition which, on many accounts, will for ever prevent the extension of cutaneous medication. In most of the acute diseases, we dare not wait for denudation of the cutis—nor trust to such a fickle process as absorption for the inhibition of active remedies. In chronic diseases, on the other hand, it can but rarely happen that such a quantity of medicine is necessary, as to render it any great object to save the

* Nouvelle Medication par la Voie de la Peau, &c. Par M. Lesieur, M.D.—*Archives*, Juin, 1826.

stomach from the disagreeable reception of drugs. Still there may be cases, where gastric irritability or other circumstances make it desirable to introduce medicinal agents through the external surface of the body, and, therefore, practitioners should be aware of the amount of power or facility they possess for this purpose.

In the 9th number of this series, p. 252, we gave an instance of the beneficial influence of acetate of morphine, applied to the denuded surface of a blister, by M. Serres at La Pitié; and it appears that the majority of M. Lesieur's experiments were on the same medicinal substance. Seventeen cases, in all, are related by our author, as treated at the Hospital Cochin, and the Bicêtre. Of these, four were chronic catarrhal affections, which were promptly relieved, and soon cured by the external application of acetate of morphine to a blistered surface. The quantity was, at first, half a grain, gradually increased to two grains. The medication was continued a month.—At any time, when the application was intermitted, the symptoms returned. Two cases of phthisis pulmonalis were much relieved by a similar application. In this disease, and in all diseases of structure in the lungs, the dose must be smaller than that which is above stated. The next case was one of pleurodyne, which had resisted leeches, blisters, and other remedies, but gave way to the morphine externally applied. A neuralgic affection of the temple was cured also by the same means. In the ninth case, powdered strychnine (one sixth of a grain) was applied on a blistered surface, for hemiplegia. The quantity being increased to two grains, a *paroxysm of tetanus* supervened, but was dissipated by the subduction of the strychnine and the substitution of acetate of morphine. This last circumstance induces M. Lesieur to propose the application of morphine in idiopathic or traumatic tetanus itself. The remaining cases relate to the endermic method of employing sulphate of quinine, musk, and emetic tartar. Our author has cured intermittent fevers of different types—convulsive cough—has raised perspirations—re-established and checked expectoration, &c. &c. by the proper remedies applied to the denuded surfaces of blisters. The Royal Academy of Medicine have been so taken with the apparent utility and importance of the “medication endermique,” that they have appointed Messrs. Andral, Double, Chomel, and Segalas, to test this process of curing diseases, by clinical experiments. We shall hear, in due time, the result of this examination.—In the interim, some of our medical officers of public institutions might easily try the effects of this method, and report upon it in the periodical journals.

20. AMPUTATION OF THE LOWER JAW.*

In the first volume of the present series, page 213, we gave an account of an amputation of the lower jaw, performed by Professor Lallemand, of Montpellier—and in the second volume of the same series, p. 210,

* Dr. McClellan. American Medical Review, vol. ii, p. 152, et seq.

we gave the details of a similar operation by Dr. M'Clelland. In a late number of the *American Medical Review*, Dr. M'Clelland has drawn the attention of his brethren to "the reproduction of bones," and to a "recent case of amputation of the lower jaw," with observations on the propriety of repeating similar operations without previously securing the carotid arteries.

Since the publication of his first case, Dr. M'C. has met with several others, which he deems of sufficient interest to lay before the profession. Of these we shall give a short account in this article.

Case 1. A little girl, three years of age, had been afflicted for several months with a horrible ulceration of the gums and cheek, which had been arrested by Dr. Eberle, the whole inferior maxilla, however, being left in a state of necrosis, and the surrounding soft parts so completely detached from it, that its size alone prevented it from being extracted from the mouth. By pushing the lower jaw downwards they were able to expose the whole front of the jaw, which they divided with a saw at the symphysis, and extracted the two halves entirely, with the exception of one of the condyles. The cavity was stuffed with lint, and the chin lightly supported by a few turns of the head-bandage. In the course of a few days, granulations sprouted up most luxuriously—filled the cavity previously occupied by bone—and were completely cicatrized over by an extension of the mucous membrane. About two years afterwards Dr. M'C. accidentally fell in with his former little patient, and was surprised to find the countenance so natural, and the motion of the lips and chin so perfect, that no one, unacquainted with the history of the case, would have supposed that any part of the maxilla had ever been removed. To the sense of touch, also, the parts presented a firm and well-defined bony resistance; and Dr. M'C. was informed that the child could masticate her food and articulate her words with ease and perfection. On examination, however, it was found (as might naturally be expected) that the lower jaw was entirely destitute of teeth, their place being occupied by a cicatrix of the firmness of cartilage; "and, on inspecting the conformation of the new bone a little more carefully, the angles were found to be deficient, or rounded off like those of a new-born child." This case, our author thinks, affords decisive evidence "in favour of the probability of a reproduction of osseous matter, after the removal of almost any bone." Dr. M'C. supports this assumption by some other instances that have occurred in the practice of surgeons. Dr. Whitridge relates the case of a young soldier, in which nearly one half of the inferior maxilla was extracted in a necrosed state, a restoration of the lost substance afterwards taking place, and the patient being left with a useful jaw. Decker, in his *Exercitationes Practicæ*, describes a case in which full two-thirds of the same bone were taken away, and where reproduction appears to have been effected by Nature. In the *Memoirs of the Royal Academy of Surgery*, there are other cases of a similar kind described;—and a case lately occurred in the practice of Professor Mussey, of New Hampshire, in which the

scapula was partially regenerated, after having been torn out from the body by a piece of machinery into which the patient had fallen. This case is very similar to the celebrated one of Chopart, in which the scapula was partially reproduced after having been entirely destroyed by necrosis.

In respect to the precaution of tying the carotid artery, before attempting any formidable operation about the throat and jaw, Dr. M'Clelland decidedly disapproves of this measure, as greatly increasing the sufferings of the patient and the danger of the operation. Dr. M'C. has extirpated almost all the glands about the throat in succession—the lower portion of the parotid, and many of the lymphatic glands—he has repeatedly exposed the carotid artery and jugular vein—and he has even dissected away tumours from the very coats of these vessels, without encountering immediate danger or subsequent inconvenience. Finally, he has recently performed an operation, which is supposed to require previous ligature of the carotid artery, and of which we shall now lay the particulars before our readers.

Case. Mr. Brown had an enormous carcinomatous tumour, occupying the lower part of his right cheek, and extending over a large portion of the throat. It commenced on the under lip, in the year 1820, and gradually extended downwards and backwards over the base of the jaw. It was circumscribed—and presented a firm cartilaginous structure. The upper portion of this tumour had been ulcerated for several months, and was now discharging an offensive ichor. On examination by a probe, the subjacent bone was found to be carious. Severe lancinating pains had long been experienced by the patient—his appetite was impaired—but his health was otherwise good. He was only 42 years of age, and anxiously desired an operation.—The steps of this bold surgical process, we shall give in the operator's own words.

“On the 28th of July, I performed an operation for his relief, in the hall of the infirmary of Jefferson Medical College, in presence of the professors and pupils of that institution. An incision was commenced at the left commissure of the lips, and carried downwards, over the symphysis of the jaw and right side of the thyroid cartilage, to the anterior edge of the sternomastoid muscle. A second incision was next carried from a little above the right commissure of the lips, around the opposite margin of the tumour, and across the angle of the jaw, until it reached the termination of the former incision. The whole mass of the tumour was then dissected downwards from the surface of the jaw, and deeply from the throat beneath, until all the parts that were included between the two incisions had been removed. By this dissection several enlarged lymphatic glands were removed from the throat, together with the original tumour on the cheek.

“After securing the facial and coronary arteries, I next proceeded to examine the condition of the jaw, which was deeply affected with caries. Having satisfied my assistants that it was absolutely necessary to remove it, I divided it by the metacarpal saw in two places,—1st, at the symphysis, between the two front incisors, and 2dly, a little before the angle—between the second and third molares. On dissecting out the intermediate piece of bone, the facial artery was again divided and secured; after which three more indurated, although not much enlarged, lymphatic glands were removed from the throat. As the surface of the sub-maxillary gland appeared to be dis-

coloured and tumefied, all that portion of it which lay on the lower surface of the mylo-hyoides muscle was removed ;—the remainder, which accompanied the excretory duct above the same muscle, being evidently sound, was left undisturbed. Of course the facial artery was again laid open by this part of the dissection and secured, for the third time, much nearer its origin than before. Although the sublingual gland was so fully exposed that it protruded very much, it was not deemed necessary to excise it, on account of its healthy appearance.

"The soft parts being now satisfactorily disposed of, I proceeded to examine the posterior extremity of the bone, the cancellated structure of which appeared somewhat discoloured, and bled profusely. As its condition was so suspicious, and as it moreover formed an inconvenient projection, which the integuments could not be made to cover, I applied the saw again, just at the angle, and removed about an inch more of the bone, together with the last molar tooth which was implanted in it. The integuments were then approximated, as much as possible, by three interrupted sutures, by means of which the cut extremities of bone were brought much nearer together than before, and the size of the wound, also, was greatly diminished. Some strips of adhesive plaster, and pledgits of patent lint, secured by a head bandage, completed the dressing, after which the patient was able to walk about with great ease." 163.

As the sutures produced painful tension, and displaced the two portions of bone, Dr. M^cC. removed them on the second day, and trusted to adhesive plaster. From that time no particular pain was complained of; and the patient continued to recover rapidly. In less than ten days the cavity in the throat was entirely closed, and in three weeks the patient was so nearly recovered, that he insisted on returning to his family. The account only reaches to the 2d September, at which time the wound was nearly healed, and he had the full power of mastication and articulation.

Dr. M^cClellan expresses his surprise that surgeons should ever have thought of anticipating hæmorrhage by securing the common carotids, in operations about the face and neck. The anastomoses between the branches of all the main arteries of the head are so large and frequent, that he questions whether the division of any one of them would not be attended with a troublesome hæmorrhage, even after the closure of both carotids. All vessels of any size that are cut, must, and may, be easily tied, at the time of division, and this is all that is necessary.

21. NEURALGIA.

So many speculations have been hazarded respecting the nature of this dreadful disease, and so little has been ascertained of its pathology, that we are not very eager to listen to a new theory on the occasion. Dr. Trevor, of New York, has published what we believe to be a new view of tic douloureux, connected with a novel mode of treatment, which we shall briefly notice. He avers, that neuralgia has seldom been known to occur, except in parts of a dense fascial or aponeurotic texture, and he views the disease "as an inflamed state of

the periosteum of the bones, to which the nerves involved in this disease are distributed." It is this inflammation, he thinks, which causes the irritation of the nerves. The management of the complaint he arranges under three heads—*first*, where it occurs in people of sound health—*secondly*, in plethoric habits, with determination of blood to the part—*thirdly*, in people of nervous temperament, whether this be the effect of the disease, or of original constitution. The treatment of the first class is very simple—the obvious and most speedy remedy being to lay the inflamed part freely open with a lancet. "Where the cheek, the most general seat of the disorder, is affected, the operation is performed from under the lip, thus doing away the necessity of causing the unsightly appearance of scars on the face. The part to be operated on, is that from which the nervous twitches commence, and to which the patients will almost always direct your attention." If these indications do not exist, as is sometimes the case, then the proper place may be found by passing the finger under the lip, and pressing with some degree of force on the periosteum of the maxillary or molar bones. The moment the diseased part is touched, the patient exclaims, and sometimes by this alone the convulsive twitches are excited. At this spot Dr. Trevor incises the periosteum, freely and extensively. The operation is attended with considerable pain; but in the course of half an hour this inconvenience vanishes. If the disease returns, the operation must be repeated.

In the second class of patients, the system must be reduced to a natural and healthy standard, otherwise the local operation will give but temporary relief. The means of doing this are obvious.

In regard to those of the third class, (the most numerous of all) whose nervous system is in a state of derangement, as well as that of the digestive organs, our author advises the operation as the first step, and then to take off the morbid sensibility of the nerves, by tonics, and especially by the carbonate of iron, paying due attention to the chylipoietic apparatus.

Several cases are detailed by Dr. T. in illustration of these modes of treatment; and we need hardly say that, in so dreadful a disease as this, we must be thankful for any hint that promises to allay the sufferings of our patients, and rescue medicine from the charge of inefficacy.—*North American Medical and Surgical Journal*, No. 2.

22. LITHONTRIPTIC PROCESS.*

It is evident that, although M. Civiale's "Lithontripteur" has had little or no success in this country, it has been otherwise in the hands of the inventor. An army physician, Dr. Brousseau, has been, among others, successfully operated on by M. Civiale, and has laid his case before the Academy of Medicine, in justice as well as in gratitude to his deliverer. We shall briefly state the particulars.

* Dr. Brousseau. Archives Generales, Avril, 1826.

In the month of September, 1824, Dr. B. began to experience symptoms of calculus in the bladder, and in February, 1825, he passed one, while making water, which was three lines in diameter, and weighed nine grains. It presented unequivocal evidence that there were others left behind. He continued to suffer severely till the month of June, when he applied to M. Civiale, who sounded him, and detected the presence of several calculi in the bladder. The process of dilating the urethra was then commenced, and on the 2d of July, the "LITHONTRIPTEUR" was introduced, for the first time, into the bladder, and a calculus, (which was judged to be about seven lines* in diameter) seized, and in eight minutes broken into fragments, of which Dr. B. passed, in the course of the next 48 hours, 36 grains in weight. For some days after this operation, the urine, which was passed more copiously and with much pain, was strongly tinged with blood. Quietude, low living, and hip-baths dissipated these symptoms; and, on the 7th of July, the instrument was again introduced. Ten minutes were spent in seizing and crushing several fragments of calculus, of which 26 grains, in a state of detritus, were passed in the course of that and the succeeding day.—The third introduction was on the 12th July, and was attended with much pain and efforts to make water, caused, most probably, by the searching for small fragments of calculus. Twenty-three grains of detritus sabulosus were voided after this operation, and considerable pain was experienced in the loins, the urine being charged with blood for some days subsequently. A fourth introduction took place on the 19th July, and was followed by the discharge of 24 grains of detritus, and much less inconvenience in making water than on former occasions. 27th July. The operation this time was attended with very little pain, and only 14 grains of detritus came away. On the 3d of August, the sixth and last exploration was made by M. Civiale, and ten grains of detritus were discharged on the same day, without any inconvenience. From this time Dr. B. recovered progressively, his urine becoming clear and easily passed, and his general health improving. He could now travel in a carriage, without experiencing any uneasiness about the bladder. In the course of these six operations, 130 grains of calculus (principally uric acid) had been broken down and discharged. Messrs. Lacroix, Debailz, Baibette, Wesley, Humphreys, and Robinet, witnessed these operations, and the results above stated.

Before Dr. Broussaud submitted to the operation, he was desirous of seeing it performed on some others; and, in this, he was gratified by M. Civiale. Two patients underwent the lithontriptic process in his presence. The first was a youth of 19 years, who had the instrument introduced eight times, at short intervals, by which a voluminous calculus of oxalate of lime was broken down and evacuated. The second patient was a Sexagenarian, who had been, for several years, tormented by calculi in the bladder. Four introductions were sufficient to rid him of his evils, the calculi being very friable.

* The French line is one twelfth of an inch.—Rev.

In the report which M. Roux, M. Cloquet, and M. Hervey have made to the Academy, they remark that it is incontestibly proved that a calculus of small volume may be broken in the bladder, and the fragments passed off by the urethra, without any division of parts, and by means of a *straight* instrument. And, they observe, although this operation must be repeated a certain number of times, and is not unattended with pain, yet it is far from involving the same chances of danger that inevitably attach to lithotomy. One of the reporters was present at five operations of M. Civiale, and expresses his highest approbation of the operation and of the dexterity of the operator.

23. CASE OF CROUP RELIEVED BY THE EXPULSION FROM THE LARYNX OF A FALSE MEMBRANE OF SOME EXTENT.*

The subject of this paper was a child, seven years of age, under the care of Dr. Monronval the narrator of the case.

On the 1st October, 1824, the little patient felt chills in the loins with great general *malaise*. By the next day the submaxillary glands were swollen, the larynx painful, and there was some difficulty in swallowing the saliva, &c. October 3d. All these symptoms were exasperated; there were, besides, a frequent and painful cough, obstructed respiration, the tonsils swollen and covered with a whitish film, deep reddening of the velum palati and posterior part of the pharynx, quick small pulse, fever, and constipation. Venesection, 10 leeches to the larynx, sinapisms, lavements, &c. &c. were ordered, but at night there was severe exacerbation. 4th. The difficulty of swallowing less, cough incessant and croupy, eight leeches, &c. 5th. Worse than before. 6th. The saliva contained several portions of false membrane: cough violent and convulsive, delirium at times. Twelve leeches were applied to the neck and lavements, &c. given in abundance. 8th. Croup still extremely severe. In a very violent paroxysm the patient coughed out a membranous tube about 11 lines in length and one line in breadth; its form was an irregular ring, cleft on one side, and when pressed between the fingers it was readily broken down. It was an exact cast of the commencement of the larynx. Immediately from the expulsion of this membrane the child began to recover. The cough abated, respiration was freer, the tonsils resumed their natural size, appetite returned, so did sleep, in short, on the 14th, convalescence was established; the boy has, however, been always since very subject to attacks of sore throat and cold on the slightest exposure.

24. EPILEPSY FROM TÆNIA.†

Irritation of the gastric and intestinal nerves produces a host of physical and intellectual phenomena that are little suspected by the routine

* Journal Complémentaire, April, 1826.

† Sur quelques Maladies graves Guéries par l'Expulsion du Ténia. Par M. Gaube.—Rev. Med. Juillet, 1826.

practitioner; and we are convinced that the study of this irritation opens the widest and the most fertile field for the talented physician, of any that lies in his path at the present moment. We are not without hope that something interesting will, ere long, appear on this subject.

Case 1. Bonet, aged 34 years, of strong constitution, had enjoyed good health till the age of 19; at which epoch he experienced a first attack of epilepsy, without any apparent cause. The subsequent accessions became more and more frequent, till at length he had them weekly, and yet without any preceding affection of the head. Several physicians were consulted, and various remedies were tried, and without any benefit. Afterwards it was observed that the patient passed by stool some joints of tænia. The means they employed to expel the worm were also unsuccessful. In 1818, when he consulted M. Gaube, he had, besides the usual severe attack, some accessions daily, of a milder kind, and which, though they did not cause him to fall to the ground, deprived him for half a minute, or so, of his faculties. At this time the following curious phenomena were observed as precursors to the regular attacks, viz. A sudden difficulty of speaking, quickly succeeded by a sense of spasmodic constriction in the right side of the neck, ascending from its basis along the œsophagus, apparently, to the tip of the tongue, which organ was drawn to the right side at the moment. Sometimes the patient had sufficient warning to endeavour to catch hold of any furniture or other object within his reach, before the fall, which was always on the right side of his body. The paroxysm lasted from ten to fifteen minutes, during which, the anterior part of his neck continued very much swollen. After each attack he felt, for an hour or two, a slight pain over the orbit of one of his eyes. He was generally able to go to work immediately after the paroxysms.

Our author, suspecting the irritation of tænia to be the cause of the epilepsy, tried various remedies recommended for the expulsion of that worm, and with the effect of dislodging a very large quantity, but without evidence of the head or any part of the neck being included in the portions expelled. Bonet's health improved after this, and he experienced an immunity from any severe paroxysms of epilepsy for the space of six months, when the attacks returned as violent and as frequent as ever.

In 1823, Bonet was seized with a very severe inflammatory disease, commencing as a violent sciatica, and afterwards taking the form of enteritis, which reduced him to a very low ebb, and ended with symptoms of ascites. This illness lasted four months, during which he was free from epileptic seizures. In the course of a few months, after his recovery, the epilepsy returned, and was attended with occasional discharges of some portions of the worm. On the second of June, 1825, M. Gaube administered the decoction of pomegranate bark (two ounces boiled in a pint and a half of water to a pint, and taken at four draughts, in the course of the morning, fasting) which brought away several fragments of the worm. On the 3d, The same dose, and the same result. On the 4th, The medicine was repeated, when 23 feet of worm

were ejected in one unbroken piece, including the head of the animal. From this time Bonet experienced no more epileptic paroxysms, and his health is perfectly re-established.

Remarks. The efficacy of the pomegranate bark in expelling tape-worm is now, we think, established beyond all doubt, by physicians in various parts of Europe; and as it may be procured in abundance from Mr. Butler, of Covent-garden, we hope soon to have the testimony of English practitioners in its favour.

The suspension of the epileptic seizures during the existence of the acute diseases, in the above case, and for some time after convalescence, is not unworthy of notice, and may furnish some useful matter of reflexion to the pathologist. The duration of epilepsy for fifteen years without any material deterioration of the intellectual function is remarkable, and can only be accounted for by the cause of the epilepsy being at a distance from the sensorium, which was only sympathetically affected. Indeed, the curability of this distressing disease generally depends on its being symptomatic of irritation in some of the viscera, and we are strongly inclined to think that the lunar caustic is principally successful where the paroxysms are dependent on *intestinal irritation*, which this medicine is peculiarly efficacious in removing, by diminishing *irritability* of the visceral nerves. We had lately a remarkable instance under our care, where a course of three months of this medicine cured a most distressing spasmodic affection of various muscles, that had resisted every remedy for a number of years. We suspected the cause to be morbid sensibility of the gastric and intestinal nerves, and the event fully justified our suspicions, and more than realized our hopes. We shall give the case more at large in a future number of this Journal.

Case 2. Ferguson, 39 years of age, an English seaman, and then a prisoner of war, entered the Military Hospital of Metz, on the 30th September, 1811, for a severe hæmaturia, preceded and accompanied by abdominal pains and progressive emaciation. The hæmaturia had been of three weeks duration, the abdominal pains of nine months' standing. Eating frequently gave the only relief to the pains. The patient said that, some weeks previously, he had passed something like a flat worm, soon after which the hæmaturia commenced. The whole of the abdomen was painful on pressure. Suspecting the presence of tænia, M. Gaube prescribed anthelmintic medicines, which were followed by a considerable diminution of the pains and of the bloody discharge. On the seventh day of treatment a strong anthelmintic, followed by a drastic purgative, brought away four joints of a tape-worm, each nearly an inch in length. The male fern was then administered, and the hæmaturia and abdominal pains were still farther mitigated. Several doses more of the medicine were given, with suitable cathartics, and immense quantities of the worm were, in consequence, discharged. The whole of the symptoms disappeared, and the sailor was discharged the hospital cured on the 25th November.

This is a curious instance of the effects of intestinal irritation, and well worthy of record.

25. SPECIFIC DISEASES AND MEDICINES.*

In his preliminary observations, Mr. Allan makes several pertinent remarks on the importance of "carefully discriminating between those minute shades of difference in the features of diseases, and the operation of remedies," which, to a careless observer, appear unimportant. The utility of this discrimination we grant—but we are sorry to observe that, in our journey through life, we have sometimes found the phantasies of an ardent imagination depicted, and even embodied into forms of shadowy existence, which served to puzzle and bewilder, rather than enlighten our path at the bed-side of sickness. We are advocates for accurate observation of the phenomena of diseases:—But we may perchance refine too far. Our attention may be so rivetted on minute and evanescent shades of distinction, of little real importance, that we may over-look those broad characteristics, which are patent to the eye of common observation, and which prove the only safe land-marks to guide us in the moment of difficulty and danger. A microscope would be a sorry instrument through which a general might reconnoitre the positions, or watch the manœuvres of his enemy in the day of battle. Mr. Allan we know to be a judicious practitioner, as well as an accurate observer; but we cannot help considering the following qualification in the physician, as Utopian. "The accomplished physician, says he, ought to be capable of weighing with accuracy all the circumstances of the case, and of selecting out of whatever class of medicines may be indicated, *the individual article precisely adapted to the peculiarities of his patient's case.*" How is this to be done, without first knowing the *peculiarities* of his patient's constitution? The *precise* article for the complaint may not be the *precise* article for the patient. What will vomit one person, will purge another—act on the skin of a third—and produce no sensible effect on a fourth. This *precision of adaptation*, therefore, is too much a matter of chance to be always expected from a physician of the most consummate skill, or unlimited experience. Let us grasp what is within the reach of human power, and we shall succeed better than by aiming at perfection, which is not the lot of humanity. But to business.

The present paper of Mr. Allan's is presented to the profession with the view of illustrating the property which cinchona has long been known to possess as an antidote to periodical diseases. In this there can be no novelty, of course;—but the mode of administration claims our notice. Five cases are detailed by Mr. Allan, as examples of the efficacy of small doses of bark. We shall sketch three or four of these, for the benefit of our readers.

Case 1. A man of sober habits was attacked with a painful affection of one ankle, without any swelling or discoloration, which caused

* Mr. Allan, Med. and Phys. Journal, Aug. 1826.

on every night, after going to bed, and arrived at an agonizing degree of severity by three o'clock in the morning. Mr. Allan commenced by smart purgation with the compound colocynth pill, and then administered *ten grains* of powdered bark every three hours, the bowels being kept open by smaller doses of the above-mentioned purgative. The pain ceased after he had taken a dozen of powders:—But, another dozen was recommended as a security against relapse. The complaint did not return.

Case 2. A servant had been exposed to wet and cold on his passage from Aberdeen to London in a smack, and soon afterwards became affected with pains in his shin bones—first in the one, and ultimately in both. The pains observed regular diurnal periods, coming on at five in the afternoon, and increasing in the night, so as to deprive him of sleep. The complaint had lasted five months. Purgatives of calomel, colocynth, and James's powder were given for several days, without any abatement of the pains. Mr. A. then directed ten grains of bark to be taken every two hours. In eight days the pains were greatly mitigated—and in a little more than a fortnight he was quite well.

When we consider that this patient took bark at the *rate* of half a drachm every six hours, the quantity was not very small in the aggregate, though the doses individually were minute.

Case 3. A woman, after exposure to wet and cold, on a voyage from Penzance to London, became afflicted with pains of a wandering nature for twelve months. After this they settled in her legs, and deprived her of rest, so that her health was considerably deteriorated. She had been under cure (or rather under treatment) at two dispensaries, without receiving any benefit. Mr. Allan, after the usual preliminary of purgation with calomel and colocynth, ordered the bark in *five grain* doses, with an equal quantity of carbonate of soda every two hours. The second night of this treatment was attended with sleep, and passed without pain. By a perseverance in the plan she got well.

Case 4. A poor woman had suffered, for several weeks, from a painful affection of one eye, remitting in the day, and coming on in severe paroxysms every evening, so as to deprive her of sleep in the night. A variety of remedies had been tried without effect. The eye, when Mr. A. first saw the patient, presented extreme vascularity of the conjunctiva with incipient ulceration of the cornea, great lachrymation, and symptoms of iritis. She had been put under the influence of calomel and opium for this last complaint, but without benefit. Mr. A. suspecting the inflammation to be of a rheumatic nature, ordered the bark in ten grain doses, with five grains of carbonate of soda every three hours—at the same time to take one grain of calomel with four of extract of colocynth every night. She was speedily cured by this plan.

We are tempted to give some particulars of the remaining case, for reasons which will presently appear.

Case. 5. A gentleman, 38 years of age, of nervous temperament, "and fond of his glass," who had long been subject to fits of syncope, and nervous tremors, was seized with pain of a peculiar character in the region of the right scapula, nor increased by pressure, and without any visible change of appearance. It was rather more troublesome in the night than in the day, but not always so. Purgatives and colchicum seemed rather to increase than diminish the evil. Mr. A. then tried his favourite remedy, bark; but here it failed completely. Leeches and fomentations afforded only temporary relief. The patient began to observe that the very act of talking about his complaint brought on the pain—so did shaving, and, at last, the sight of the barber excited the paroxysm. The carbonate of iron was now given, in doses of a scruple every six hours, increased, in a few days, to a drachm. Under this treatment the disease gradually declined, and soon completely disappeared.

Now let us see how far the observations in Mr. Allan's preliminary remarks apply to the cases which he has brought forward. We find the disease or diseases produced apparently by different causes—occurring in different sexes and constitutions—and occupying different textures of the body—in short, agreeing in no one character, except the prominent one, *periodicity*. Yet Mr. Allan, like a good practitioner, disregarding "those minute shades of difference in the features of diseases," is guided solely by one plain and obvious phenomenon, and applies the same remedy, in (almost always) the same dose, to five different patients. Thus we see that, at the bed-side, these refinements and minutiae which are so much insisted on in the peroration, are thrown aside; and we are led by indications so plain that he who runs may read. One remark more on this point and we have done. In the fifth case, we do not find Mr. Allan (than whom there is not a better practitioner in London) with all his acumen and discrimination, able to select "the individual article precisely adapted to the peculiarities of his patient's case;" for he first tried the bark, in small doses, and was obliged to abandon it for carbonate of iron.

In respect to these small doses of bark, we are very much inclined to agree with Mr. Allan. Medicines, and especially the cinchona, are often placed in the same predicament as food. The good effects of both the one and the other depend, not so much on the quantity ingested as on the quantity digested. A great deal of bark and of carbonate of iron is often passed through the digestive canal unchanged. In this way, they may be given in large doses, without more benefit to the patient than if exhibited in much smaller ones. We think Mr. Allan's paper is calculated to afford some very useful hints to his brethren:—and, while we have ventured to question some points in his peroration, we are ready to accord the fullest meed of approbation to his practice.

26. SPONTANEOUS COMBUSTION.

M. Hellis of Rouen, relates a case of this kind in the April Number of the *Journal de Médecine*. The circumstances are these.

A woman named Soret, æt. 57, and very corpulent, had a most lively

attachment for eau-de-vie, for which she was repudiated by her husband, who allowed her four francs a-week. On the night of the 31st December, having received her allowance, she repaired forthwith to the cabaret (*Anglicè*, gin-shop) where, in order to do all just honour to the new year, she got, if possible, more intoxicated than usual. The neighbours were not a whit surprised at her returning and making some stir at midnight; but, on hearing a loud crackling noise, they suspected fire; no unusual light however appearing, there was no inquiry made. In the morning, a woman having occasion to borrow something, went to Soret's room, which she found filled with a dense smoke, though none of the furniture was on fire. The commissary of police was instantly called, and with him M. Hellis repaired to the spot in a short time afterwards. On entering the room they were struck with the strong empyreumatic smell and the thick smoke which presented themselves. The body was lying on the floor; little remained of it but the legs; part of the haunch, and the head. The chest, the belly and its contents, the trunk for the most part, and the upper extremities had disappeared. The bones of the fore-arm were calcined, so were the scapulæ, the pelvis was partly destroyed and contained only a shapeless mass of carboniferous matter. The clothes of the unfortunate woman were partly consumed. Strewed on the floor were the debris of animal carbon, some few pieces of wood charcoal, traces of blood near the head, and remains of a recent evacuation. The left hip was resting against a stool, and both were still burning. None of the furniture close by was damaged, a candle on the table, was extinguished, and nearly whole, and the cinders around were unctuous and highly fetid.

Such are the principal features of this case, and we must confess, it is a more satisfactory one than that related at page 286, No. 9, of this Journal. When we consider the quantity of combustible matter necessary to effect the destruction of the human body in its natural state, it is difficult, nay impossible, to account for the present case on any other supposition than that of spontaneous combustion. Scarcely were the clothes of the woman burnt; the furniture, with the exception of a stool in juxta-position with the body, remained unsinged, and yet the trunk, vertebræ and all, was utterly destroyed. The age of the woman, her immoderate love of eau-de-vie, her corpulency, and the circumstance of an ignited body, the candle, being present, make the case rather similar to the celebrated one of the Priest Bertholli. We think it probable that the woman, in her drunkenness, may have set fire to her clothes, and that this may have been the *origin* of the combustion, of course the progress and the result were owing to the state of the individual. It was, we believe, John Hunter, who, on dissecting a man who had been much addicted to the use of spirits, found the blood converted into a kind of oily matter. To notice the various theories that have been concocted to account for spontaneous combustion would fill many a quire. That which refers the occurrence to the extrication of hydrogen gas is the most plausible, and is in high favour in France, whilst, on this side the channel, little is said upon the subject, and not a few consider the whole a delusion.

XII.

Periscope

OF

AUTHENTICATED HOSPITAL REPORTS,**English and Foreign,****WITH COMMENTARIES.**

ON the utility and importance of authentic histories of cases occurring in public institutions, we have uniformly insisted, and we are now very happy to see that several of our most distinguished metropolitan physicians and surgeons have liberally, and we think wisely, adopted the resolution, not only of recording the more important cases occurring in their respective departments, in a book open to the inspection of all the students, but of permitting these documents to be diffused through the profession at large, by means of the press.* This has been acted on for some years in the Parisian hospitals, and the beneficial effects are acknowledged all over the Continent. Whatever scepticism may attach to statements made by individuals in private practice—(a scepticism, however, which we think is now carried by many people to an unjust degree,) the records of hospitals, preserved in the above manner, both at home and abroad, are perfectly free from suspicion of infidelity. Any attempt at adulterating, or even colouring cases of this kind, would argue little else than insanity in the superior medical officer; while, from those who are appointed to copy or abstract the histories, all temptation of misrepresentation is not only taken away, but a positive danger would be incurred by such attempt—the reporter being known, and, of course, responsible for errors or inaccuracies—much more for perversions of facts. From what we have ourselves seen, the same remarks apply, with strict justice, to the records and recorders of foreign hospitals, where matters of this kind are arranged and laid open to inspection, with still more care than in this country.

In our Periscope of Hospital Reports we hope to give as much

* It has been most untruly asserted that we are inconsistent in our conduct, having, it is alleged, at one time, condemned the publication of hospital reports. We deny it. We condemned, and do still condemn, *garbled and erroneous reports*, as injurious and unjust; but we have ever recommended, in the most strenuous terms, the publication of *authenticated, correct, and fair reports* of cases occurring in public hospitals. If this be inconsistency, we hope never to act otherwise.

satisfaction to all parties as in our analyses of other species of medical literature—namely, by conveying the more important or useful facts to our readers, notwithstanding the abbreviations which must necessarily take place, but which habit enables us to make, without material detriment to, much less disfiguration of, the original documents.

In our commentaries, we shall always endeavour to be guided, not only by strict regard for truth and justice, but by a religious horror of that prostitution, or rather profanation of the pen of criticism which, by ribaldry, perversion, or abuse, would crush every attempt to open the flood-gates of knowledge, excepting for our own personal advantage, and roll back to its source the tide of information, rather than permit it to flow through any other channel than our own. But, while we cautiously avoid all approach to such degrading and unprincipled conduct, we shall hold ourselves free to comment on such points of doctrine or practice as appear to invite remark; and that, in the spirit of liberality and delicacy which befits a science, having the mitigation of human suffering for its object and end.

With these few preliminary observations we proceed to our task, and hope that our actions will not be found to fall short of our professions.

I. M. LISFRANC ON WHITE SWELLING.*

ALTHOUGH we cannot expect much novelty on the subject of white swellings, after the investigations in this country by a Russel, a Crowther, and more especially a Brodie; yet it will not be uninteresting to know the opinions, the researches, and the modes of treatment of M. Lisfranc, who has talent to observe, and a wide field for observation. We shall therefore present our readers with a brief account of the present memoir, omitting the detail of cases, amounting to twenty-two in number.

Our author defines white swelling to be an *engorgement*, generally slow and dense, of the soft parts forming or surrounding the joints—with or without alteration of structure in the bones and cartilages. M. Lisfranc's observations lead him to believe that the disease may commence in any one of the tissues of the joint—but that it generally begins in the ligaments—the cartilages—or the bones, whence it spreads more or less rapidly to those structures which are most contiguous.

M. L. divides the disease into two classes—idiopathic and symptomatic. He thinks the minute divisions and distinctions into which Mr. Brodie has gone, are useless, if not injurious.

Idiopathic white swelling is that which succeeds external violence, in an individual otherwise healthy. This class, M. L. avers, is equally as common as the other, whatever may be said to the contrary. This species always begins in the soft parts. The *symptomatic* white swelling is that which grows up under the influence of a morbid constitutional affection, as scrofula, gout, and rheumatism. These are the only diseases to which he could trace white swelling. Authors, however, have endeavoured

* *Memoire sur les Tumeurs Blanches des Articulations; recueilli à l'Hôpital de la Pitié, dans les Salles de M. Lisfranc, &c.—Archives, Mai, 1826.*

voured to connect it with small-pox, measles, syphilis, the suppression or retrocession of other affections, &c. This species may commence either in the soft parts of the joint, or in the articulating extremities of the bones. In the beginning, both species are attended by inflammation, whether acute or chronic—but arrived at a certain epoch, that is, when the tissues are reduced into one homogeneous, or lardaceous mass, there is no symptom of inflammation to be seen, except the swelling which is far from being a proof of that process. The symptoms are the same, both in the symptomatic and idiopathic species, when the disease commences in the soft parts; symptoms so well known that M. Lisfranc does not stop to describe them. He observes, however, that when the disease is produced by rheumatism or by external violence, the form of the inflammation is generally acute—though never so rigid in its march as common phlegmonous inflammation. The skin is rarely reddened. We come, therefore, to the pathology—or morbid anatomy of white swelling.

Pathological Anatomy. Six cases came under M. Lisfranc's observation, where the patients were cut off by other diseases, at a more or less early period of the white swelling. In all of these, the alterations were of the same kind—and only differed in respect to *plus* and *minus*. But to proceed from the surface to the interior. The skin was sound and free from inflammation in most of these cases—so was the subjacent cellular membrane, except that it contained a small quantity of serous infiltration, and was itself rather thicker than in a sound joint. Beneath this was found a yellow stratum more consistent than the cellular membrane, and interspersed with a number of vessels carrying red blood. In this stratum too, Mr. Lisfranc sometimes observed small tubercles. Still deeper, as the ligamentous structure was approached, this cellular bed or stratum became indurated, lardaceous, and resistant to the scalpel. The articular ligaments were distended with a liquid more or less consistent, and sometimes gellatinous. The capsular ligaments or bags were of a reddish colour—often much thickened, and containing a fluid of variable consistence. In two or three instances M. Lisfranc found the articulating ends of the bones diseased—being increased in volume, softened in substance, and turned of a yellow colour. The cartilages participated in this state.

The following was the morbid anatomy of amputated members—that is, of the advanced state of white swelling.

The skin was sometimes thicker, sometimes thinner than natural—cellular membrane indurated, lardaceous, and confounded with the ligaments and capsular bags—the neighbouring portions of muscle pale, extenuated, and the interstitial cellular substance more or less infiltrated with albuminous matter—the trunks of nerves in the vicinity appeared enlarged and harder than natural—the veins dilated and varicose—the arteries enlarged, and their tunics thickened—depôts of purulent matter more or less numerous—ulcerations of the cartilages and denudations of the heads of the bones—capsular ligaments thickened or ulcerated—the

bones tumefied, carious, softened. In the most advanced stage the whole joint is often a confused mass, in which it is almost impossible to recognize a trace of natural structure, except the tendons, and some portions of muscle.

In respect to diagnosis we need say nothing, as the disease cannot be mistaken. The prognosis is grave—except where the white swelling is idiopathic, or owing to rheumatism, in which cases there are hopes of cure, unless the state of disorganization is very far advanced indeed. The scrofulous white swelling is, of course, the most dangerous.

Treatment. Whether the disease commences in the hard or in the soft parts, it matters not, as far as the treatment is concerned—it is the same in both cases. M. Lisfranc avers that the acute inflammation of white swelling is never removed at once—it always terminates in the chronic form of the disease, and it is through this process alone that a cure is to be expected.

In the first place, whether the white swelling be acute or chronic, it is necessary to examine into the state of the thoracic and abdominal viscera. If there be any organic disease, in either of these cavities, it will be dangerous to attempt a cure of the white swelling. M. Lisfranc has repeatedly seen the visceral disease, in such cases, increase proportionally as the local affection yielded. Under these circumstances, we are advised by our author to content ourselves with combating the more urgent symptoms only of the white swelling, while we direct our attention to the more important visceral malady.

When there is nothing in the constitution to forbid the cure of the local disease, the first thing indispensable is absolute rest of the part, without which, nothing can be done. Anchylosis is always a probable effect or consequence, and therefore the position of the limb should be such as may render that event as little detrimental to the patient as possible. In order to prevent anchylosis, however, our author advises the practitioner to gently bend and extend the member every two or three days, when this can be done without giving or increasing the pain. Whenever gentle motion produces this effect, we may suspect that the process of anchylosis has commenced, and then we are to endeavour to promote rather than retard it. When purulent depôts have formed, they should be opened and evacuated as speedily as possible.

Acute White Swelling. General and local depletion ought here to be employed in proportion to the acuteness of the inflammation, and the strength of the patient. In the course of the first eight or ten days, two general bleedings should be taken, and from 30 to 50 leeches applied every two or three days. Fomentations and cataplasms are recommended in this stage to be assiduously employed, well impregnated with opium, after each sanguineous depletion. The regimen should, of course, correspond with the other antiphlogistic measures.

In the majority of cases, these means will, in the course of ten days, reduce the acute inflammation, and bring it into a chronic state. But

sometimes this will not be the case—and then the question arises, how long are we to go on with the energetic depletive process? After the above period, M. Lisfranc advises that some food be given, first, of the lightest kind, chiefly the farinaceous—and then, gradually more and more nutritive, otherwise we may considerably injure the tone of the digestive organs. In respect to local bleedings, they must be continued as long as they appear to afford relief to the part, and not to enfeeble too much the constitution. Sometimes, though very rarely, these means fail to quell the acute inflammation, and we are forced to desist for a time, and allow the patient to rally a little. The topical applications, in the mean time, are to be continued, and a moderate diet allowed. In a fortnight or three weeks, we may resume the local bleeding. Should all these means fail in reducing the march of the acute inflammations, there will be little other chance of saving the patient's life but by amputation. Many practitioners recommend this operation to be delayed till the patient is arrived at an advanced degree of emaciation. M. Lisfranc is of a very different opinion. He removes the limb as soon as he finds the means above-mentioned fail, and the patient's general health begins to be sensibly deteriorated. We think he is quite right.

Chronic White Swelling. When the acute has terminated (as it usually does) in the chronic form of the disease, free sanguineous depletion is detrimental. When the disease, however, has commenced in the chronic form, as it sometimes does, then M. Lisfranc thinks it advisable to employ a few active local depletions—since in this, as in several other parts of the body, there is sometimes a *latent* acute inflammation going on, which does not manifest itself by the usual symptoms. A remarkable instance of this kind happened a few years ago, the anatomical preparation being presented to the Academy of Medicine by M. Lisfranc. A vigorous young man was received into La Pitié, for a white swelling of the knee joint. He complained of no pain, even when the joint was bent or extended—in short, he did not present a single symptom of inflammation, except the swelling. While in the hospital he got intoxicated one day, and, falling on his head, he was carried off in a few hours. On dissection of the joint there were unequivocal evidences of a violent acute inflammation. The articular capsule was of a dark red colour, thickened, and softened in texture. The cellular tissue was yellow, abundant, hardened, and lardaceous, intersected by numerous red vessels. In this case it is evident that had stimulating applications been used at the beginning, under the impression that no active inflammation existed, the disease would have been greatly exasperated, and probably the limb would have been lost. Nevertheless the cure of chronic white swelling cannot be effected without stimulants, or resolvents, although their *modus operandi*, where there is disorganization or complete change of structure, is an enigma which we cannot at present solve. The fact, however, is certain, whatever may be the explanation.

The first step of treatment, then, in chronic white swelling, is the

application of a small number of leeches—from two to six, with the precaution not to let the bites bleed long. On this plan, their action is rather excitant than otherwise, as has been proved hundreds of times by M. Lisfranc, at La Pitié. After the application of the number above-mentioned, with the precaution respecting the bites, we generally find, the next day, that the volume of the swelling is augmented—its sensibility increased—and sometimes an erysipelas established around the bites. These symptoms need occasion no alarm. In forty-eight hours the erysipelas will have disappeared—the tumefaction and sensibility will have abated—and the original volume of the swelling will be found to have become somewhat diminished. At the end of four or five days the leeching (on the small scale above-mentioned) may be renewed, and will be followed by similar effects. The temporary increase of excitement, after the leechings, was always regarded by M. Lisfranc as advantageous, being invariably, when moderate in degree, succeeded by either diminution of size, or softening in the consistence of the joint affected. The leechings should not, of course, be renewed till the excitement produced by the preceding batch has subsided. Sometimes the excitement rises too high after these small leechings, and continues more than two or three days. In that case, we must subdue the excitement by the application of a considerable number of leeches—which will rarely fail to produce the effect desired. Speaking generally, the after-excitement will be in an inverse ratio to the number of leeches applied:—consequently, if five leeches produce too much subsequent inflammation, eight or ten ought to be applied the next time—and, on the other hand, if five leeches produce no after-excitement, only two or three should be applied at the next period, and so on.

It is not always, however, that excitement, in any degree, follows these small leechings. The swelling and hardness will be found to diminish after these applications, without any intervening excitement. The same remark, though not to the same extent, is applicable to blisters and the moxa. These sometimes produce their good effects without the intervention of a temporary increase of inflammatory action in the part.

When the leechings cease to be followed by the salutary consequences above described, we are to omit their application for ten, fifteen, or twenty days, when the susceptibility of the parts will be found renewed, as it were, and then we are to reiterate the leeching.

If the leechings do not appear to be productive of the good effects sought for, we must try some other means. If the swelling be only softened, but not reduced in volume, compression may be usefully employed. Next to leechings, however, we must, in general, have recourse to flying blisters. Their effects are analogous to small leechings. They first produce excitement, and subsequently diminution or softening of the tumour. The blisters should be renewed every seven or eight days. When these fail to produce the desired effects, then the moxa is to be employed, on the same principle, and in the same manner as the small leechings and the blisters—that is, about once in seven or

eight days. They should not be larger than the size of a five sous piece, in order that the eschars may not interrupt the reiteration of the remedy. Whenever the excitement resulting from the moxa runs too high, then large leechings are to be employed for its reduction. The tumour being softened by the moxa, as by any of the other means; compression, for a time, (eight or ten days,) is to succeed, protecting the eschars by proper dressings. When the disease is very chronic; and when the means already enumerated begin to fail, setons are very serviceable. When they excite too much irritation, they are to be reduced in size, or, this failing to lessen the excitement, leeches and antiphlogistic measures are to be put in force.

Notwithstanding all the means we can employ, it often happens that a certain degree of engorgement remains, especially at the lower part of the joint—and also some effusion in the articulation itself. We need not be anxious about this, as, in the majority of cases, time will remove it. If tardy in its dispersion, mercurial frictions will be serviceable, as also frictions with the ointment of iodine, (hydriodate of potash.) These may be alternated with other stimulating liniments, while the local application of the warm water or vapour bath is to be brought in as an auxiliary of no mean efficacy.

A curious fact is here noticed by M. Lisfranc—namely, that, after the cure of white swelling by the above-mentioned means, the joint gets smaller than before the disease took place, and will continue so for a considerable space of time. The patient should be cautioned to return very gradually to the free exercise of the joint, since relapses are apt to ensue from want of attention to this point. If the disease be in the lower extremity, the patient should go on crutches for one or two months after the symptoms have disappeared. The joint should be kept tightly bandaged for a long time after all other means are discontinued.

M. Lisfranc has repeatedly remarked that, where the white swelling has been situated in the joints of the superior extremities—especially in females, the application of leeches, even in great numbers, and preceded by general blood-letting, has determined congestions in the thoracic organs, and produced difficulty of breathing and palpitations of the heart. In other instances, cerebral congestions have been the result of remedial measures applied to the local complaint, and apoplexy threatened. The local treatment must then be discontinued, and leeches applied to the feet, together with purgatives and diuretics internally. It is also proper to discontinue the local treatment, in the case of females, for a few days previous to each expected menstrual period, lest that process should be interrupted in its course.

The above-described treatment will generally prove successful in the idiopathic white swelling—but the case will be different when we have the symptomatic form of the disease to contend with. Here we must attend to the constitutional disorder, of which the white swelling is only a part, or rather an effect. We need not enter upon the constitutional treatment of rheumatism and scrofula in this place; but only remark, that the local treatment, indicated in the preceding pages, will

prove serviceable as an auxiliary to the constitutional, in the symptomatic forms of white swelling.

Twenty-three cases are minutely detailed from the practice of Beclard and M. Lisfranc, in La Pitié, illustrative of the various positions laid down in the foregoing paper. These we must pass over, of course, hoping that we have, in a few pages, concentrated a considerable mass of important and useful pathological and therapeutical matter, the result of experience in a public institution, by a man of eminence, talent, and strict veracity.

2. SLOUGHING ULCERATION.

In the second number, (New Series) of the Medical and Physical Journal, two cases of sloughing ulceration are reported from the practice of Mr. Travers, in St. Thomas's Hospital. The first was the case of a young female lately become abandoned, and consequently addicted to intemperance. She was admitted for a small, irregular, sloughy ulcer on each side of the perineum, of three weeks' duration, for which she had taken no medicine, although her health had suffered severely. She was ordered camphor mixture and nitric ether thrice a day, with an opiate at night, and an opiate application to the sores. In ten or twelve days the sores had become clean and healthy looking. She was now ordered wine and bark; but at the end of a week, we find the sloughing process had again commenced, implicating the whole of the perineum, and extending to the nates on one side. The sloughs were of a black colour, and threw forth a fetid discharge. The pain was very great, and of a burning kind. The surface of the body was covered with copper-coloured spots—pulse 120—tongue furred—great thirst—constipation. *Venesection—camphor and nitrous ether—opium—port wine—poppy decoction—opiate applications—aperient.* On the 4th day from this time, we find the labia sloughing more rapidly. The undiluted nitric acid was freely applied over the whole wound by means of a pencil-brush, working to the bottom of the slough, which was dense and resisting. Two grains of opium were given and in 20 minutes she was free from pain. Next day, the patient was better, in respect of the local symptoms. The acid application renewed, as was the opium. In two or three days more the slough was thrown off, leaving a florid granulating surface copiously suppurating. The wound is an inch in depth, in some places. The constitutional symptoms are improved—the appetite better—and the febrile irritation less. She improved gradually and very slowly till discharged from the hospital.

The second case was that of a young lad, who came into the hospital for inflamed phymosis and sloughing sore surrounding the extremity of the prepuce. The swelling, tension, inflammation, pain, and sloughing rapidly increased, accompanied by corresponding constitutional irritation. Twelve leeches were applied—the parts fomented—and antimonial saline aperients given every six hours, with an opiate at night. In three days after this, we find the slough extending, increase of pain,

&c. He was bled to 12 ounces—had the camphor mixture with ether—and an opiate, as usual, at bed-time. The sore remained stationary for three days after the bleeding, and then began again to extend, with increase of pain. A dozen leeches. A grain of opium three times a day. From this time the patient improved rapidly, till he exposed himself one day to cold at a window, when great effusion took place into the integuments of the penis, accompanied by a dark red inflammation, exquisite pain, and anxiety. The strong nitric acid was applied to the parts whence the slough had separated. The pain was very severe, and lasted about 20 minutes, succeeded by perfect ease, and sound sleep. Next day the tumefaction had subsided, the induration and inflammation having abated. A foul sore was now disclosed at the frenum, where alone pain was complained of. Matters again soon took a turn for the worse; the slough gradually spreading till the whole of the original sore was contaminated, with return of pain, tumefaction, and other bad symptoms. In short, the whole prepuce sloughed away, together with a considerable portion of the glans penis, and some part of the parietes of the urethra, so as to form an opening into that canal, an inch from the external orifice. Two days later, nearly the whole glans is reported to be in a sloughy state, as well as a considerable portion of the integuments of the penis, attended by excessive pain and anxiety. The strong nitric acid was again applied, followed by opium reduced to the consistence of cream. Carbonate of ammonia, musk, and opium were exhibited internally. The slough caused by the acid separated in two or three days; but as it fell off, the sloughing process attacked the exposed healthy surface—"its progress not being in the slightest degree impeded by the local application of the medicines." Several other plans were now tried, as the sulphate of quinine—wine—opium—bark—conium—argenteum nitratum externally, &c. At length we find the whole penis destroyed, and still the destructive process going on, with agonizing pain night and day. The scrotum was next invaded, and the testes left exposed. It is needless to pursue the diary of this unfortunate victim of illicit pleasures. He died at length, worn out by a series of sufferings, which it is dreadful even to contemplate—and which must have afforded a terrible spectacle, and it is to be hoped, a memorable example for the numerous youths attending the hospital!

The above case presents a melancholy instance of phagedenic ulceration, running on for four months, and resisting the various remedies, local and general, which could be devised. This unfortunate as well as imprudent young man contracted the disease in Swan-Alley—a place notorious for profligacy and debauchery of the most degrading and dangerous kind.

Two cases follow, of "sloughing ulceration" under the care of Mr. Green, at St. Thomas's Hospital, in which the nitric acid was the principal local application. In one case, the termination was favourable—but in the other, (a girl 15 years of age) the labia pudendi, perineum, nates, &c. &c. were destroyed by this terrible disease, and death closed the scene, attended with all the horrors of pain and despair!

Mr. Rose reports two cases, treated at the St. James's Infirmary, of "sloughing ulceration" of the genital organs, in which bleeding, purging, opium, and low diet, led to a fortunate termination. As this is a plan which, in our experience, has succeeded better than any other, in such cases, we shall give the particulars of one of these histories for the benefit of our readers.

Case. D. Andrews, 23 years of age, was admitted into the infirmary on the 27th April, having a deep sloughing sore on the inner prepuce, immediately behind the corona glandis, which had almost entirely separated the gland from the extremities of the corpora cavernosa, penetrating into the urethra, the whole sore being covered with a deep slough the edges jagged, and surrounded by a dark red margin. Tongue dry and rough—emaciation—thirst—flushed countenance—hot skin—quick pulse—burning pain in the sore, which had existed for a fortnight, during which he had been taking mercurial pills. *Venesection to 12 ounces—lotion of opium and conium—antimony and sulphate of magnesia every four hours—15 grains of Dover's powder at bed-time.* 28th. Sloughing goes on—blood inflamed. *Repeat the venesection to 14 ounces. Medicines continued.* 29th. Fever continues—no sleep—blood still inflamed—sloughing extends. *Repeat the venesection to 12 ounces, as well as the same remedies.* 30th. Blood less inflamed—has slept some, and is less irritable—sore is easier. *Pergal.* May 1. Some healthy pus on the wound. *Medicine continued.* 4th. Sore has rapidly improved—sloughs are separated—granulations springing up every where. Has left off medicine, and is allowed nourishing diet. From this time every thing went on well, and in three weeks the sore was healed.

The other case was that of a female, the treatment and event being the same as in the former case. The surgical practitioner will choose for himself between the different plans of treatment portrayed in this article. We have stated our own preference—but we may be wrong. Experience must decide.

3. ON TIGHT BANDAGING IN PHLEGMONOUS ERYSIPELAS, &c.

About ten or eleven years ago, M. Bretonneau, a distinguished physician of Tours, maintained a thesis on this subject in Paris, and was most roughly treated by the professors on that occasion. In the present instance, M. Velpeau, a man of talent and observation, has come forward to maintain the same principles which had been advocated by his friend, M. Bretonneau. Tight bandaging has been long in use for ulcers, œdematous swelling, and other chronic affections, unattended with much pain or acute inflammation:—and M. Velpeau does not seem to know that, some years ago, Dr. Balfour, of Edinburgh, proposed and practised this measure even in *acute* rheumatism. In phlegmonous erysipelas, where the cellular membrane, between the integuments and

muscles, and between the muscles themselves becomes disorganized, tight bandaging has been employed in this country, with the view of changing the suppurative into the adhesive inflammation. Free incisions have also been made into the parts, not only to give vent to the purulent matter, but to bring on a different kind of inflammation in the diseased structures. M. Velpeau incidentally alludes to this practice, as pursued by an eminent surgeon of Paris, and brings forward the present paper to advocate the use of tight bandaging, as a measure that will secure all the advantages of free incisions, without the pain or formidable appearance attendant on the operation by the scalpel.

Ten cases are selected by M. Velpeau from the practice of "*Hôpital de la Faculté*," for the elucidation of his subject; consequently the cases are authentic, being under the eye of many spectators, who could readily detect any misrepresentation. We shall give a brief account of a few of these cases.

Case 1. This was a young woman who entered the hospital for the removal of a scatomatous tumour from the ham, which was done a few days afterwards, without difficulty, and without any untoward symptom, until the 8th day, when fever was kindled up, and inflammation extended about the wound. It took on an erysipelatous character, and soon reached within a few inches of the groin. Bleeding, leeching, &c. were employed, but the fever persisted, and "every thing indicated the establishment of suppurative inflammation in the cellular membrane of the thigh." It was even feared that matter had actually formed. The surgeon (M. Bougon) now authorised M. Velpeau to employ his compressive bandages, which were accordingly applied to the thigh—one between the groin and the erysipelas—the other above the calf of the leg. Compresses moderately tight were also applied between these two points. In the course of the evening the general symptoms of excitement had almost entirely subsided—the pain of the limb was greatly mitigated—the inflammation had ceased to extend—and, in short, the erysipelas disappeared in two or three days more.

Case 2. A man, 45 years of age, came into the hospital, for the cure of an ulcer on the shin of 18 months' standing. The healing of the ulcer was far advanced, when, for the purpose of accelerating the cure, the man was bled from the arm. There quickly supervened considerable fever and constitutional disturbance, followed by an erysipelatous inflammation on the ulcered leg, extending from the heel to near the knee. Red streaks were also seen extending up the thigh to the groin. To this part a large blister was applied. The fever and inflammation of the thigh subsided; but the leg became greatly swelled, and all the medical officers believed that suppurative inflammation was going on in the cellular membrane of the limb. A bandage was applied methodically by M. Velpeau, from the heel to the knee. During the first hour the pain was rather increased, but afterwards diminished gradually, and had nearly ceased by the evening. Next day, the redness and swelling had greatly subsided, so much so, that had not the constitutional symptoms also subsided, *pari passu*, with the local, the medical attendants would have apprehended a metastasis. This did not happen, and the patient was well in a few days.

M. Velpeau here asks whether the constitutional disturbance, which became developed in this case immediately after the venesection, could have been owing to that operation, or a mere coincidence? We think there can be little doubt that the *latter* was the case. It was very improbable that an erysipelas of the leg could be suddenly set up by a bleeding from the arm. The explosion was ready to take place in the constitution, and it is not quite impossible that the venesection accelerated the event. The good effects of tight bandaging, in this instance, are certainly apparent, if not real.

Case 3. A woman, 46 years of age, had the right mamma amputated for scirrhus of that part. During eight days afterwards she suffered much from pain in the right arm, which was not attended to, till the member began to swell and exhibit a shining appearance with redness. Leeches were applied in great numbers, and renewed every two or three days. The pain was diminished, but the redness and swelling continued, and even increased. It was then determined to use compression. A tight glove was applied to the fingers and hand, while a bandage went spirally up the arm to the arm-pit. The pain was entirely removed in one day—and in two days the swelling had nearly disappeared. In the course of five days the arm was in such a good condition that the dressing was confided to the common dressers of the ward, and the patient was soon cured.

This swelling of the arm is not an uncommon consequence of removal of the female mamma, and often ends in extensive abscesses or troublesome erysipelas. Compression is undoubtedly a useful measure in such cases; but few would think of applying it while acute inflammation was going forward in the part.

Case 4. A young man, 23 years of age, of strong constitution apparently, entered the hospital on the 6th January, 1826, for the cure of several small ulcers, surrounded by considerable swelling and hardness, on the left leg. These had been of two years' standing. M. Roux ascertained that various openings on the surface conducted by different fistulous canals to the cellular membrane within the tendo achillis. Several incisions were made; and sinuses laid open. At first the appearances of things were bettered, but after a time, the glands of the groin swelled, and the whole limb became affected with erysipelatous inflammation, and was very painful. Constitutional fever and irritation supervened. The external erysipelas was dispersed, but great swelling of the limb continued, with every symptom of deep-seated suppurative inflammation. At this time the compressive bandage and adhesive plaster were applied, in the manner recommended by Baynton, and the very best effects followed. The size of the limb was soon reduced, the ulcers cicatrized, and the deep-seated abscesses healed.

The above cases are sufficient specimens of a practice which is much more common in England than on the Continent, although M. Roux, after his journey to this country, naturalized, as it were, the Bayntonian method of treating ulcerated legs, in France.—*Archives, Juin, 1826.*

4. FOLLICULAR ULCERATION.*

In various parts of this Journal, we have endeavoured to draw the attention of our brethren in this country to the state of the mucous membrane of the primæ viæ, in fevers and other diseases; and we are glad to find that medical men are now in the habit of examining this important tissue much more scrupulously than formerly. In our ninth Number, we gave some account of the researches of Dr. Bretonneau of Tours, and Dr. Troillet of Paris, in respect to the formation, progress, and cicatrization of intestinal ulcerations. Our countryman, Dr. Hewett, has not been idle since his appointment to St. George's Hospital; and we confidently anticipate many useful investigations from this intelligent and well-informed physician, during his official labours at the above-mentioned establishment. In our cotemporary for August, Dr. H. has detailed ten cases of follicular ulceration, observed in fever patients, in the wards of St. George's Hospital. We are not able to afford space for any of these cases, as they cannot be abridged without detriment; but we shall endeavour to give an abstract of those pathological observations which Dr. Hewett has appended to the cases themselves.

His object is to shew the origin and progress of the disorganizing process of follicular ulceration, "during the course of the idiopathic fever," without at all maintaining that this is the cause of the fever.

"A reference to the above post-mortem examinations will shew that the disease seems at first to be limited to the mucous follicles, affecting both the glandulæ aggregatæ and solitariæ, more especially the former, where distributed over the ileo-cæcal portion of the intestines;—that their orifices may be seen plugged up with a dark and morbidly inspissated secretion;—that this secretion continuing, and being pent up within the follicle, in consequence of the obstruction of its orifice, tumefaction of the gland necessarily ensues, as in the sebaceous follicles in *acne punctata*; that these mucous glands may be seen in various stages of enlargement,—at first only slightly elevating the mucous membrane, and, by their protrusion of it, presenting an uneven granulated surface, like that of dried seal-skin;—that, in most instances the incipient tumefaction of the follicles, and in many instances their ulceration, takes place without any increased vascularity of the neighbouring surface;—that the disorganising process, by affecting many of the contiguous mucous glands, forms ulcers of the size of a sixpence or a shilling, or even larger in some instances, without any increased vascularity, but more generally with slight redness and considerable thickening of the mucous membrane immediately surrounding the margin of the ulcer;—that the margins of the ulcer frequently appear, at least in the early stages, puckered, jagged, or fringed;—that the base of such ulcers often exhibits a rough irregular surface, with little projecting masses of enlarged and sloughing follicles, or presents a sloughy ash-coloured appearance, resembling that of chancre, or displays a dirty-yellow hue, from the

* Dr. Cornwallis Hewett, Physician to St. George's Hospital. *Med. Journal*, Aug. 1826.

bilious-coloured feculent matter adhering to it;—that the ulceration seems to commence sometimes at the apex of the tumefied gland, sometimes in the membrane protruded, and thus forced into ulceration by it;—that the work of disorganization seems to be effected partly by the ulcerative, partly by the sloughing process;—that each individual follicle gradually sloughs off, in proportion as its neighbouring membrane is eroded by ulceration;—that this erosion extends gradually downwards, from the mucous to the muscular and peritoneal coats, sometimes, though rarely, perforating the latter, and then rapidly exciting extensive peritonitis, by the escape of foreign matter into the cavity of the abdomen;—that this perforation of the peritoneal coat is sometimes prevented, by the effusion of lymph from its surface, external to the ulcer, causing agglutination of it to some of the neighbouring convolutions of the intestines, or to the omentum;—that the mesenteric glands, communicating with such ulcers, are generally found increased in size and vascularity; and sometimes, when cut into, resembling, in colour and consistence, the pulp of a Morella cherry, or even that of a red cherry." 109.

The symptoms attending the recovery of some cases (hereafter to be described) seem to Dr. H. to warrant the belief that such ulcers had existed, but had subsequently healed.* A conclusive proof of this last position was afforded Dr. Hewett in the dissection of a sailor who, fourteen months previously, had suffered severely from dysentery on the Coast of Africa. From this he slowly recovered, but died in St. George's Hospital of a disease quite unconnected with the dysenteric affection. On dissection, the mucous membrane, from two or three inches above the ileo-cæcal valve along the whole course of the colon and rectum, appeared spangled with circular or irregularly-oval scars of former ulcers. In some, however, the process of reparation had not been completed—and along the base and margin of these healing ulcers, there was distinctly seen a thin film of yellowish white coagulable lymph, proceeding apparently to fill up the ulcerated cavity.

"In many instances it had not yet reached the level of the adjoining surface; in others, it had: in the latter, the regeneration of the surface seemed complete, the lymph having become so intimately blended with the neighbouring membrane as to be scarcely distinguishable, except by the glistening and spangled appearance above mentioned. In the former, the process of reparation seemed to be gradually advancing: in these, the neighbouring edge of the mucous membrane (which had probably been previously thickened and fringed,) appeared to be gradually subsiding, contracting and bevelling itself down so as to favour the progress of the cicatrization. Where the breach of surface had been completely repaired, there was no increased vascularity; and only a very faint appearance of it in the ulcers undergoing the healing process; the degree of redness seeming to vary according to the exigencies of

* See our review of Dr. Latham's work on the Diseases of the Penitentiary Prisoners—and also Dr. Troillet's paper on the Cicatrization of Intestinal Ulcers, No. 9 of this series, p. 192.

each individual ulcer, being more or less, in proportion as more or less lymph was required for the filling-up of the ulcer, and gradually becoming evanescent, as the continuity of the surface was re-established.

"The healing of these ulcers appeared to me to be effected, not, as in external ulcers, by any visible growth of granulations, but by a process analogous to that which is displayed in the reparation of ulcers of the cornea, by the deposition of lymph." 110.

Those, indeed, who have practised in climates where dysentery prevails, must have had numerous opportunities of seeing these remains of former ulcerations, when their patients happened afterwards to die of other diseases. But they have seldom recorded with minuteness the appearances which these intestinal cicatrices present.

Dr. Hewett observes that, in most of the cases of follicular ulceration in idiopathic fever, the seat of the ulcers will be indicated, upon opening the abdomen, by some deviation from the natural transparency of the peritoneum—"either by small opaque patches of silvery whiteness, or by apparently attenuated spots, occurring in discoloured portions of the intestines." It not unfrequently happens, however, that there are no particular appearances of the peritoneum to indicate the existence of these follicular ulcers—hence they have generally been overlooked.

Another morbid appearance which our author has occasionally detected in the mucous membrane of the intestines, in those who died of protracted fever, when abdominal derangement had entirely subsided, or was not prominent, was as follows:—light buff-coloured patches of various forms and sizes, without elevated borders, but with a well-defined outline, marked by the sudden difference of colour between them and the adjoining surface. The inclosed area is traversed by numerous thin seams or septa, forming, by their interlacement, minute cellulae, the base of which appears to be either the denuded peritoneum, or a nearly transparent film of lymph, deposited upon that membrane.

Dr. Hewett bears testimony to the general accuracy of M. Broussais's description of intestinal ulcerations, as given by us in our July number of this Journal—and promises, in the next paper, an attempt to ascertain the period of idiopathic fever, at which this follicular ulceration of the intestines usually appears—together with a plan of treatment suitable to these diseased conditions. The following passage, should it ever meet the eye of Broussais, will make his hair stand on end, "like quills upon the fretful porcupine."

"At present, I would only beg permission to state, that these pathological views afford an additional and powerful argument for active and persevering purgation by effective doses of calomel, combined with any of the usual auxiliary purgatives, in the early stage of fever. Its power of preventing follicular ulceration, seems readily explicable on the following principles:—The preceding investigations appear to have established that the first step towards follicular ulceration is obstruction of the orifice of the gland by its own morbidly-inspissated secretion; the next step being distention, from the continuance and accumulation within

it of this secretion, and subsequently ulceration. If, then, at this period effective purgatives be employed, they will clear out the obstructed orifices, and thus anticipate the distention and subsequent ulceration of the follicles." 114.

The disciples of Broussais will draw a conclusion the very reverse of this, and accuse the purgative plan of Dr. Hewett as one of the principal causes of the very ulceration which it is meant to prevent! Such are the different views entertained on the north and south sides of "La Manche!"

Since the above was written, Dr. Hewett was kind enough to shew us an exquisite specimen of this follicular ulceration, (or, as the French pathologist terms it, "pustular enteritis,") which was presented in the intestines of a female who died of fever. The various stages of the disease, from a small rounded prominence, not larger than a pin's head, to a broad streak of ulceration, leaving only the peritoneal covering entire, were most distinctly marked in this case—the disease occupying many feet of the small intestines.

We have no doubt that this disease is of frequent occurrence, and that it has been often overlooked, from not examining, with care, the mucous surface of the bowels. The writings of Bretonneau and Dr. Hewett will, doubtless, excite attention to the subject in this country.

9. ON FRACTURES OF THE SPINE. BY M. LISFRANC.

THE general fatality that attends these accidents, and the difficulty of managing them, has led to a reluctance in studying them. This should not be the case. Fortunately the spinal column is so constructed and protected as to be rarely fractured—and still more rarely luxated, except at the summit of the chain. The fracture may be in the spinous or transverse processes, or in the body of the vertebra. The signs of this formidable accident are not always unequivocal, and are sometimes very much the same with those which attend certain natural dispositions of the spinal column. In these doubtful cases the patient should be placed in the horizontal posture, and the spinous processes carefully examined. Great care, however, should be taken in making these examinations, as a very slight motion or twist might produce the most irremediable mischief. M. Lisfranc has ascertained that the stethoscope applied to the ribs, or even to the scapula, will give intimation of such fractures, by the grating noise produced. In fractures of the spine, the spinous processes are sometimes elevated, sometimes depressed below their natural level. No dependence is to be placed on the degree of pain of which the patient complains. The most certain diagnostic symptom was paralysis—especially loss of motion, for the loss of sensibility in the parts below the fracture is a much less common phenomenon.

The bladder and rectum more frequently feel the effects of this paralysis than any other internal organs. On this account the catheter should be introduced at least twice a day. If there are liquid feces

in the rectum they will pass off involuntarily—if solid, they will be retained. Sometimes, when the spinal marrow is slightly injured, inflammation will arise—and instead of paralysis, we shall have convulsive movements, subsultus tendinum, or even tetanus. Meteorism, or tumefaction of the abdomen, is among the most common consequences of spinal fracture. When the patient dies in ten or fifteen days after the accident, the intestines, rectum, and bladder generally present evident traces of inflammation. In fact, the urine and fæces remaining in contact with their respective mucous surfaces (where the organic sensibility is not destroyed, in consequence of nervous influence being derived from the great sympathetic) occasion irritation, and ultimately inflammation. This irritation and inflammation may be recognized during life, by the morbid secretions produced in the bladder and intestines. The thick glairy mucus secreted in the bladder tends greatly to prevent the free discharge of the urine, and requires sometimes the introduction of warm watery fluids for its dilution. The urine, in such cases, has always a strong ammoniacal odour. In many cases death is not produced by the paralysis, but by these consecutive inflammations—hence the special care which we should take to obviate these consequences, and thus give the patient every chance for his life.

In all shocks of the spinal column, whether there be fracture or not, we have to apprehend injury on the part of spinal marrow—primitive or secondary. In the first instance we sometimes observe no particular effects for several days—then the consequences of effusion, inflammation, &c. begin to shew themselves. Thus, a man in the wards of M. Dupuytren had received a contusion of the spinal column by a fall. At first there was only a slight degree of paralysis of the lower extremities, which disappeared in a few days. At the end of ten days the paralysis returned, but in a much stronger degree. The symptoms increased, and death ensued. On dissection, no fracture could be discovered. There was merely an extravasation of sero-sanguineous fluid at the lower part of the dorsal region of the spinal canal. In the same wards, and under the eye of Lisfranc, the following case occurred. A woman slipped down a flight of steps, and struck her spine (about the lower cervical and upper dorsal vertebræ) against one of them. She was brought to the Hotel Dieu, with paralysis of the lower extremities, rectum, bladder—together with loss of sensibility in the integuments of the abdomen and thorax. She breathed only by means of the diaphragm. From day to day the paralysis made progress. The arms got benumbed, and the march of mischief in the spinal canal could be traced up to the origin of the phrenic nerves. The patient died in a state of asphyxia. On dissection, the body of the seventh cervical vertebra was found to be fractured, together with a rent in the spinal marrow opposite the fracture. From this point up to the origins of the phrenic nerves, there was evidence of acute inflammation, and also of softening of the medullary mass.

The *prognosis* in fractures of the spinal column must be always gloomy. When death occurs after the 10th, 15th, or 20th day, it is

almost always owing to consecutive inflammation of the spinal marrow. Some patients have gone on to the 40th day—others have lived paralytic more than six months—and some have survived and continued in a state of paralysis. In these cases, the members waste—and when eschars form, they are very slow in their progress, being generally of a dry nature, the cicatrization being very tedious.

Treatment. Are we to attempt the reduction of fractured bones in the spine, and keep them in coaptation? If the fracture be unaccompanied by paralysis, we should be very cautious how we attempt reduction, however widely the fragments may be separated from each other. In such attempt we may injure the spinal marrow, and thus run into the very danger we wish to avoid. In the mean time, it is evident that we ought to fix the patient in such a position that he may not himself execute any movements likely to injure the medulla spinalis. Two fatal examples of the disregard of this precept were witnessed by M. Lisfranc. If a severe degree of paralysis accompanies the fracture; then, indeed, we are bound to reduce it, if possible, since we can hardly increase, and may, perhaps, lessen the mischief. "When the reduction is difficult," says our author, "the English have proposed to cut down upon the bones and lay them bare, in order that the depressed parts may be seen and elevated. In some cases they have trepanned the spine with success." We should be much obliged to M. Lisfranc to point out these cases of success.

Our next object is, of course, to prevent, or to keep down inflammation, by general and local bleeding. Leeches, in great number, should be applied to the spine, even when there are symptoms of concussion, with coma, &c. provided the pulse be strong and regular. By these means M. Lisfranc has been successful in several cases of fractured spine. The bladder and bowels are to be carefully attended to, for the reasons pointed out above. When the paralysis supervenes some time after the accident, and when it cannot be attributed to osseous compression or wound of the spinal marrow, we must then conclude that it is owing to inflammation or extravasation, in which cases we have to trust almost entirely to bleeding and counter-irritation. Such are the general indications drawn from numerous facts, some of which we shall lay before our readers in a future number.—*Rev. Med. Nov. 1825.*

G. MR. GUTHRIE ON PHLEBITIS, &c.

Phlebitis after Amputation. Mr. Guthrie [Med. and Phys. Journal, No. 1,] remarks, that phlebitis is one of the most fatal consequences of amputation, and occurs most frequently where the patient has been previously in an irritable or suffering state. The inflammation is of two kinds—adhesive, or healthy—and irritative, or unhealthy. The former often passes unobserved, or, if observed, is easily cured. The latter is generally fatal. It is, Mr. Guthrie thinks, the most common cause of death after amputation. When it is about to take place, the

pulse quickens, the stomach sickens, vomiting of bilious matters occurs, and the usual symptoms of fever follow, with rigors and remissions. The patient emaciates rapidly—the skin becomes tinged yellow, and often covered with perspiration—bowels irregular. The pulse becomes quicker, weaker, and more irritable—and the patient gradually sinks. Or, perhaps, he may rally a little, for a time, and think himself getting better, whilst the deterioration of his appearance is evident to the surgeon; and a new accession of fever closes the scene. There is often no more pain or suffering about the stump than usual, nor any remarkable tenderness in the course of the vessels. In the case which Mr. G. relates in illustration, the femoral vein, as high as Poupart's ligament, on the amputated side, was frequently examined by pressure, and also the iliac, but no uneasiness was complained of. The evolution of heat was considerable. "The sudden and great enlargement of the whole of the superficial veins was early very conspicuous, which, with the severity of pain experienced at all times, and augmented to agony on the slightest motion, were the only perceptible differences, and those only in degree, to be observed between it and a case of phlegmasia dolens, either by comparison with what I recollected or recollect of cases previously or subsequently seen." It was also the only instance out of a great number of cases, in which the femoral veins of the opposite side became affected after amputation. Mr. G. has seen the opposite iliacs frequently implicated, but never remembers to have seen the inflammation proceed lower. In few can the inflammation be traced higher than the diaphragm—indeed, the patient usually dies before it passes the junction of the emulgent veins.

Mr. Guthrie appears to consider Dr. Davis's theory of phlegmasia dolens as essentially correct—the venous inflammation, in this disease, being most frequently of the healthy or adhesive kind; whereas, in amputation, it is of the unhealthy, or erysipelatous kind. But Mr. G. does not coincide with Dr. Davis in the cause of the phlebitis in phlegmasia dolens, (pressure of the uterus on the veins,) nor in the locality of its origin. "I would suggest," says he, "for the future, the propriety of tracing the veins from the common iliac of the affected side down to the uterus; and when attention is particularly directed to this point, I have little doubt but the inflammation of the veins will be found to have begun at the uterus, and to have ascended along a continuous surface, until it implicated the veins of the extremity." This, of course, is only conjecture on the part of Mr. Guthrie; and neither it nor the dissections and reasonings of Dr. Davis have yet convinced us that the primary cause of phlegmasia dolens is inflammation of the veins. At the same time we are ready to admit that Dr. Davis has made out a very plausible case, and has hit upon a very ingenious theory. Future investigations are necessary to shew how far it explains the phenomena of this curious affection. We shall give a very brief outline of the case published by Mr. Guthrie.

Jane Strangemore was admitted into the Westminster Hospital for an elastic swelling of the knee-joint, measuring 27 inches in girth. It

was of five months standing, and was attended by severe paroxysms of pain during that period. Amputation just below the trochanter was performed by Mr. G. three days afterwards. Next day the pulse rose, and the stomach became irritable. Proper medicines were administered, and she seemed better. On the 4th day the stump was dressed and looked well—pulse 120. On the 6th day there was much pain in the stump, which was caused by change of dressings. On the 12th day every thing was promising, and the patient ate meat with an appetite. On the 13th day fever set in, and pain was complained of in the other leg and thigh. She was well purged, and the member fomented. 14th day, pulse 130—furred tongue—bilious vomiting—the pain in the thigh, extending up to the groin and down to the heel, intolerable—thigh and leg much swelled, tender to the touch, elastic, and not red or œdematous. Mr. G. pronounced the disease to be phlebitis. She lived 17 days after this, sometimes better, sometimes worse; but always emaciating, and the pulse ranging from 126 to 136, the appetite generally good. At the period of her death the limb had every where diminished in size, except at the groin, where it was circumscribed, resembling a chronic abscess approaching the surface.

On dissection, the vein was open on the face of the stump, and in a sloughy state—the inside of the vessel as high as Poupart's ligament, bore marks of inflammation, but of the adhesive kind. Above that point it appeared of the erysipelatous kind, and had gone on to suppuration, the vein being filled with purulent matter, lymph, and blood. These appearances extended to the cava beyond the diaphragm, with some traces of inflammation almost to the heart. This disease had passed along the right internal iliac and its branches, and descended along the left iliac vein, affecting its branches in the pelvis to the uterus, and along the limb to the sole of the foot. At the left groin, the iliac vein becoming femoral, was distended with pus of good quality. The viscera were healthy.

How far this disease will be admitted as identical with the phlegmatia dolens of puerperal women, we leave to our obstetrical brethren to decide. For our own parts, we have seen six well marked cases of the latter, and we do not admit the identity. We have not room, however, to state the points in which they differ.

7. CESOPHAGITIS—HYDROPHOBIA.*

The following case proves one of two things—either that the bite of a dog (which was not proved to be mad) could be followed two years afterwards by symptoms of hydrophobia; or, what is much more likely, that hydrophobia may result from other causes than the bite of a rabid animal.

* Ch. Pfeuser. Senior Physician to the General Hospital of Bamberg.—*Heid. Klin. Annal.* 1825.

Case. J. Kneiss, aged 48 years, of sanguineous temperament, and in excellent health, received a slight scratch from a dog, that did not evince, before or after, any appearance of hydrophobia. He took no notice of the accident. Nearly two years after this, having drank freely of cold liquids while heated by work, in the month of May, he soon experienced a difficulty of swallowing fluids, a sense of weight in his limbs, and a feeling of intense cold throughout his body. He took some trifling medicines, and on the third day there was violent fever, great thirst, and such a spasmodic affection of all the parts about the oesophagus and larynx, on the attempt to swallow liquids, that he fell into a kind of delirium. This was reproduced by each succeeding attempt. On being received into the hospital of Bamberg, he presented, besides the foregoing symptoms, a remarkable velocity in all his movements, a loquacity of speech, and a furious expression in his countenance. The pulse was quick and full, the action of the heart precipitous, and sometimes suspended, skin hot and dry, thirst considerable, tongue coated, urine scanty, red, and turbid; deglutition of solids easy. He was bled to 32 ounces, and had a laxative enema. The ensuing night was spent in dreadful agitation, with occasional delirium, convulsive movements, and fits of lypothymia. The pyrexia now ceased for a time, and calomel with belladonna, in small doses, were prescribed, while mercurial frictions with the same were applied along the spinal column. The thirst soon afterwards became intense, the pupils dilated, and a frothy mucus was ejected from the mouth. These symptoms continued for two days more, and the sight of water or any other liquid produced horrible convulsions. The patient complained of intense pain in the region of the stomach, and the tongue seemed inflamed. Eight ounces of blood from the jugular vein, and 20 leeches applied to the head. Ice was also applied to this part, a blister to the nape of the neck, and sinapisms to the lower extremities. In the evening, a severe paroxysm of agitation, and 32 ounces of blood were abstracted. A complete remission of all the symptoms followed, the patient was calm and collected, full of hope, and swallowed whatever medicines were offered to him. This state of tranquillity lasted all the day, and in the beginning of the night he had three hours' calm sleep. From this period he fell into a state of extreme apathy, stupor, and complete prostration of physical and intellectual forces. He died in a few hours afterwards.

Dissection. The cerebral substance was extremely soft—spinal marrow sound—salivary glands very much swelled—some gangrenous eschars on the surface of the pharynx and larynx, the vessels of which were extremely injected—thyroid gland enlarged, changed in colour, soft, and full of thin black blood—oesophagus inflamed throughout its whole extent, and presenting some spots of gangrene—the diaphragm in the same condition—mucous membrane of the stomach and duodenum very red—pancreas in the same state as the salivary glands.

This is a curious case; and, we think, there can be little doubt that the ingurgitation of cold liquids, when the body was heated, produced

the inflammation in the mucous membrane of the parts above-mentioned ; and that this inflammation, tending so rapidly to gangrene, gave evolution to the whole of the phenomena described. The more we study the physiology and pathology of these mucous membranes, the more we shall be astonished at the overwhelming influence which irritation of their nerves exerts over the whole of our physical and intellectual functions. This study is yet in its infancy, and it presents the widest, as well as the richest field for genius and talent to cultivate.

8. ACUTE RHEUMATISM OF THE JOINTS.

It appears from the Hospital Reports of our cotemporary, the Medical and Physical Journal, that Dr. Chambers, of St. George's, is in the habit of distinguishing rheumatism affecting the synovial membrane and bursæ of the tendons, from that which affects all the neighbouring parts in the first instance. These varieties, however, pass into each other, though they more generally run a distinct course. The treatment of the *diffuse* form, consists in the administration of calomel and opium—generally ten grains of the former and two of the latter, every night, or night and morning, with a daily black dose to clear the bowels. As soon as the mouth becomes affected, the symptoms usually subside, and the medicine is discontinued. This plan has also been pursued by Dr. Macleod, with great success, for several years past. The treatment of acute, and we might say of chronic rheumatism, by calomel and opium, is employed by many practitioners, and is that which we have had recourse to for twenty years past. But colchicum and occasional bleeding are very useful auxiliaries, and often abridge the quantity of mercury which would be otherwise necessary. These auxiliaries also prevent the necessity, in many instances, of affecting the mouth at all—a circumstance of considerable importance in private practice, though not so much so in that of an hospital.

In the August Number of the same Journal, Dr. Chambers has published some cases illustrative of rheumatism affecting the synovial membranes, and in which the treatment is somewhat different from that described above. A single case will exemplify the nature and treatment of synovial rheumatism, according to the views of the reporter.

Case. Susan Church, aged 17 years, has been ill nine months with occasional swellings of synovial membranes, the urine being always thick at the time of the attacks. She has now (June 14, 1826) pain and swelling occupying the extensor tendons of both hands, particularly the left, with effusion into the sheaths of the tendons, and into some of the joints of the fingers. Pulse 100—skin cool—tongue slightly furred—bowels natural. *A draught of pimento water, with 20 minims of vinum colchici every six hours. Low diet. 15th.* Knees much distended—hands better. *Ten leeches to the left knee—spirituous lotion to the parts affected. The colchicum continued. 26th.* The medi-

cines have been continued, and the leeches four times repeated. The knee is much better. From this time, she gradually recovered, and was discharged cured on the 3d of July.

The treatment, in short, which has been adopted for this kind of rheumatism, consists in leeching, evaporating lotions—colchicum—calomel, and other cathartic medicines—with occasional blisters. This plan we believe is the one most commonly put in force by practitioners in general—and is quite unobjectionable.

9. DR. BLAND'S HOSPITAL REPORTS.

In the *Nouvelle Bibliothèque* for 1826, Dr. Bland has published some of the principal cases which occurred in the *Hôpital de Beaucaire*, of which he is physician. We shall notice briefly here such as present any features of interest or importance.

Case 1. Denis Faucon, æt. 39, a gardener by trade, had been affected for upwards of two years, with severe attacks of gastric irritation, which latterly had increased much in intensity. July 2, 1825, he applied to Dr. B. with the following symptoms. Extreme emaciation, dejection of mind, sleep broken, tongue red, and its papillæ elevated, some appetite, a feeling of weight and oppression in the region of the pylorus, changing about an hour after taking food into insupportable pain, attended with nausea, and vomiting, generally of a liquid matter. It is remarkable, that after taking a full meal of animal food, these symptoms would not make their appearance, while, on the contrary, on eating vegetables, or any light food, the pain, vomiting, &c. would be sure to occur.

Supposing the case to be scirrhus of the pylorus with chronic gastritis, Dr. Bland prescribed one grain of extr. cicut. three times a day, with some other remedies of no importance.

On the 5th of July, in the middle of the night, during a fit of vomiting, the patient expelled a hard, black body, which, on examination, proved to be a peach-stone, its roughnesses rounded down apparently by attrition. The man now said that several years before the first appearance of the disease, he was frequently in the habit of going to sleep with a peach-stone in his mouth.

From this time the disease began to be mitigated, though it did not quite disappear till the end of January, when Faucon regained his health and former *enbonpoint*.

Remarks. The length of time the foreign body remained in the stomach without being suspected; the resemblance which the symptoms bore to those of scirrhus of the pylorus; and finally the non-appearance of the regular paroxysm on eating a quantity of animal food, render this case not only uncommon, but very interesting. There is this difference between the history of this affection, and that of cancer of the stomach, that in the latter, any thing which calls for great action

in the organ, such as a full meal, so far from affording relief, as happened in this instance, causes great aggravation of the sufferings. The relief experienced when the stomach was distended, no doubt arose from the viscus being so prevented from coming in contact with, and acting on, the irritating body.

Case 2. Jean Baumelle, æt. 59, entered the hospital on the 2d July, 1825, presenting the following symptoms; dull, bearing down pain in the hypogastrium; great difficulty and straining in making water; the urine fetid, and always preceded by a quantity of muco-purulent matter, mingled at times with clots of blood; occasional hæmaturia. On introducing the finger into the rectum, the bladder was felt thicker and more resisting than natural. The stools were healthy, the emaciation and debility excessive.

Iodine was the remedy employed with the effect of gradually lessening the difficulty of passing the urine as well as the quantity of muco-purulent matter, which accompanied it. This treatment was continued till the 15th of September, when it was discontinued, the patient being nearly well.

Remarks. Dr. Bland remarks, that in his hands the hydriodate of potass has been successful in arresting chronic inflammation of the mucous membrane of the nose and bladder: we hope that the medicine will prove equally efficacious in the hands of others.

Here follow four cases of tic-douloureux of the sub-orbital and dental divisions of the fifth pair of nerves. The gist of our author's observations is this, that where the neuralgia was *intermittent*, the sulphate of quinine was effectual in stopping the disease; where, on the contrary, the paroxysms were only *remittent*, the quinine was found ineffectual, and the extract of henbane, valerian, and oxide of zinc, succeeded in checking them.

Three cases of carbuncle are detailed, one of them fatal. The first appeared on the right cheek of a man of upwards of fifty years of age, of a strong constitution, and residing in an unhealthy neighbourhood. M. Linnée, the surgeon of the hospital, having made a crucial incision into the pustule, placed in the wound a quantity of caustic potass. The disease, however, spread rapidly, and Dr. Bland being called in consultation, a second cauterization was practised on the subjacent cellular tissue, fomentations were applied, and the man did well.

The next patient was not so fortunate. He resided in the country, was apparently healthy, and was forty years of age; the carbuncle was seated near the sternal extremity of the left clavicle, cauterization was freely employed, but in two days he sunk.

The third case was that of a girl, ætatis 12; the anthrax was here situate upon the left upper eyelid; leeches, cataplasms, and strict diet were the means employed. The girl recovered.

Our author remarks, and we entirely agree with him, that where there is little action, where the disease seems indolent, and where the gan-

genuous parts are not divided from the healthy by a well-defined inflammatory circle, cauterization is the plan indicated. Where, on the contrary, there are severe pain, febrile heat and strong pulse, the anti-phlogistic treatment will be found the best.

10. MR. SHAW ON HERNIA.

There is no surgical disease which presents a greater variety of appearances and phenomena modifying the treatment than hernia. Mr. Shaw, in his hospital report from the Middlesex, has stated a curious case of a man brought into that institution in the middle of the night, with a large scrotal hernia, which had come down the preceding afternoon. The disease was of ten years' standing, but had been reducible by the patient himself. He complained of much tenderness near the neck of the tumour, and pain darting towards the back. Various attempts by the taxis were made—venesection—ice—stimulating injections, &c. but without success. The warm bath and bleeding to syncope, did not succeed. Next day the tumour was of immense size, extending more than half-way down the thigh, with the testicle projecting at the lower part, and the skin dragged off the penis. The sac of the tumour was tense, but the skin was loose. The principal seat of pain was opposite to the ring, where the tumour abruptly ended. At first it was thought that the great size of the tumour was owing to air in the gut; but this was disproved by the operation, which was performed by Mr. Shaw. The hernia being unusually large, it was determined to make a small incision only, so as to expose the ring, and not to divide the neck of the sac, unless it should be found necessary. When the division of the ring was made, the inferior edge of the internal oblique muscle, with a fascia, and some fibres of the cremastic muscle, presented themselves. There was obviously great relaxation of the neck of the hernia produced by the division of the external abdominal ring, and an attempt at reduction was made, but given over, as it appeared that the neck of the sac itself produced a degree of stricture. This part was, therefore, pinched up and cautiously opened to the extent of an inch and a half, when the finger ascertained that the stricture was removed. In the operation of reducing the hernia now, a jet of serum issued from the wound, and continued to flow to the extent of more than a pint. The tumour was, in consequence, greatly reduced in size, there being only left a small knuckle of intestine which was easily returned. The lips of the wound were brought together by ligatures and adhesive plaster. An anodyne draught was exhibited. The patient did well, and on the 10th day after the operation, was free from complaint. *Medical Journal No. 1.*

In the same Journal, Mr. Boyle, surgeon of the Middlesex Infirmary, has related a case which is of very rare occurrence—namely, where the operation for hernia was twice performed in the same place. The patient had been operated on four years previously, and had worn a truss till shortly before the present accident. The taxis was tried, but without effect, and Mr. Boyle proceeded to the operation. When the sac

was laid open, a table-spoonful of serous fluid escaped. The stricture was found at the inner margin of the tendon of the external oblique muscle, and was removed by a gently conducted sawing motion of a probe-pointed bistoury. Every part of the protruded intestine had a livid appearance. It was returned—the wound united by two stitches—and the usual dressings applied. The bowels were soon opened after the operation, and in six days the parts were completely united.

11. OBSERVATIONS ON URETHRAL STRICTURE.

It is well known that a rigor, succeeded by more or less of re-action, occasionally follows the introduction of a bougie into the urethra. When this accident does occur, it is generally after the first or the second introduction of the instrument. There is seldom more than the one paroxysm produced, and the patient is quite well in a day or two. But sometimes things turn out otherwise, and the patient continues for several days in a feverish and uncomfortable state, with head-ache, white tongue, thirst, and loss of appetite. This state, in some instances, has been renewed every time the bougie has been introduced, and the operation is obliged to be discontinued, lest the constitution should suffer more than the local complaint might gain. An eminent surgeon of this metropolis was thus circumstanced lately with one of his patients, who was an elderly gentleman, having stricture in the urethra, and an enlargement of the prostate gland. When he was on the point of giving up the attempt at using the bougie, he observed that the rigor did not come on immediately after the introduction of the instrument, but directly on making water for the first time after the operation. This observation induced him to try the experiment of allowing a hollow bougie to remain for some time in the urethra, so that the water might drain off, without touching the irritated surface of the stricture. The expedient succeeded perfectly, and the old gentleman had no more constitutional symptoms from the use of the bougie. The same distinguished surgeon urges on the attention of his pupils the necessity of giving no direction to the point of the bougie during its introduction. Gentle force must be used, but the instrument should be allowed to take its own course, otherwise we shall be almost sure of giving it a wrong one and thus penetrate the membrane of the urethra and form a false passage. When the latter accident occurs, which is not very unfrequent in unskilful hands, the best way is to keep the patient quietly in bed, taking nothing but the mildest diluent drinks, and, if there be pain in the parts, to apply some leeches. By this plan the false passage heals, and no ultimate mischief ensues.

12. M. LISFRANC'S HOSPITAL REPORTS.*

M. Lisfranc continues, with zeal, his hospital reports. Messrs. Geoff-

* In *La Pitié*. *Revue Med.* Juin, 1826. Recorded by Messrs. Geoffroy and Lambert.

froy and Lambert are the gentlemen appointed to record them, and we hope this plan will soon be followed by all the eminent medical officers of our public establishments. Valuable contributions might now be made to medical science from the naval and military hospitals; and, from the character of those who preside over these departments, we anticipate this event. But to return to M. Lisfranc.

1. *Chloruret of Lime in Burns.* This substance, in rather a dilute solution, has been applied, in LA PITIÉ, to burns of different kinds, and apparently with advantage. The application is sometimes made directly after the accident—sometimes with the precaution of previous emollient cataplasms. The burnt surface is first covered with fine linen slit in various places and spread with cerate. Over this is placed a quantity of lint wet with the solution of chloruret of lime, more or less strong, according to the idiosyncrasy of the patient. The dressings should be frequently moistened with the solution, and never permitted to get dry.

Burns are divided, by M. Lisfranc, into six degrees of intensity: viz. 1mo. Superficial inflammation, without phlyctenæ; 2ndo. Inflammation of the skin with phlyctenæ; 3tio. A portion of the papillary substance of the skin blackened, the vital powers of this portion extinguished, but the alteration not extending deep; 4to. The whole substance of the skin burnt and deprived of life; 5to. All the tissues disorganized, the bones only left untouched; 6to. The soft and hard parts reduced to a state of carbonization.

M. Lisfranc details seven cases of burn, produced in various ways, and by different burning substances, which were treated with success in La Pitié. They were almost all burns of the third degree according to the above scale, some of them being only of the second degree of intensity.

Whether this mode of treatment possesses advantages over the cold applications, or the opposite dressings of turpentine, &c. which are in use on this side of the channel, must be decided by clinical experience. We here put our readers in possession of M. Lisfranc's plan, without hazarding any opinion of our own.

2. *Cancer of the Rectum removed by Excision.* This was a formidable operation, and, if the disease was really of a scirrhus nature, the event has been most fortunate indeed, for terrible is the fate of that man who is destined to end his days by cancer of the rectum!

Case. Joseph Pontain entered LA PITIÉ on the 9th February, 1826, aged 45 years, of good constitution and sanguineous temperament. He stated that he had laboured under hæmorrhoids for 15 years, and never used any remedies. For five months previously, the pourtour of the anus presented a number of nipple-like eminences very close together, the patient experiencing great pain whenever he went to stool. When any portion of the rectum was everted by straining, it appeared studded with eminences similar to those which were external. When he entered

the hospital his general health appeared good, and all the functions carried on with regularity.—On the first examination, M. Lisfranc considered the case as one of piles, and prescribed accordingly; but, a few days afterwards, on introducing the finger into the rectum, he recognized a scirrhus of that gut, occupying about an inch in extent of the mucous membrane. The patient experienced lancinating pains, of an intermitting character in the part, and was told that nothing but an operation would cure him. To this he readily assented, and it was performed in the following manner. The patient being laid on a mattress, an assistant introduced a square piece of linen into the rectum, with strings attached to the angles. The hollow of this compress was then stuffed with pieces of lint, so as to distend the rectum above the sphincter, and afford a mean of pulling down and inverting the gut; but the manœuvre did not succeed, as the plug came away without everting the rectum. M. Lisfranc himself repeated the experiment, but with similar want of success. The patient was then desired to strain with all his force, while Lisfranc introduced the fore-finger of the left hand and bent it into the form of a hook, by which he was enabled to invert, though imperfectly, the intestine. He now, with a pair of strong crooked scissors, partially detached a portion of the scirrhus from the subjacent structures, which portion, being seized, served as a tractor to draw the rest more into view, when the whole was completely cut away circularly, thus removing full two inches of the mucous membrane, embracing one half of the sphincter ani. Very considerable hæmorrhage followed, which was suffered to continue for ten minutes, during which, more than a pint of blood was lost. The rectum was then plugged, and a T bandage applied. M. Lisfranc and three pupils remained more than an hour with the patient. No bad symptoms followed during this period. About noon, the patient experienced colicky pains and an urgent desire to go to stool. The plug was expelled by these efforts, and about 12 ounces more of blood were lost. The pulse then became small and intermitting, and syncope was threatened. The rectum was again cautiously plugged, taking care not to push the lint through the wound among the coats of the gut. At four o'clock, P. M. the patient complained of chilliness, the face was a little flushed, the pulse rose, and other febrile symptoms set in, but disappeared in the evening. At midnight, the patient made another effort to evacuate the rectum, and again dislodged the wadding, with a considerable quantity of *coagulated* blood. The appearance of the blood induced the pupil of the night to conclude that the hæmorrhage was stopped, and, therefore, he did not renew the plugging. The patient complained of no severe pain, and he passed the remainder of the night comfortably. Next day, the symptoms were favourable—the pain moderate—and little or no fever present. A poultice applied to the anus. Severe abstemiousness. No untoward symptom afterwards occurred—a rectum bougie was regularly introduced to prevent stricture of the gut—the wound cicatrized, and the patient was discharged cured in a short time.

This operation was very fairly managed, and the only doubt in our

mind is in respect to the nature of the disease cut away. We know that, in hæmorrhoidal affections, there will often be indurations and even ulcerations in the rectum, which are very far from being of a cancerous nature, and may continue for a long time, especially induration, without much inconvenience. We suspect that the case in question was one of this kind—and that the removal of the hæmorrhoidal tumours would have been sufficient, without resorting to so formidable an operation as that which was here practised. However, the event was fortunate, and the patient has certainly obtained a radical cure.

3. *Morbid Sensibility of the Retina.* M. Lisfranc reports some cases of both deep-seated and superficial inflammation of the eye, where, after repeated depletion by leeches, &c. and the application of blisters, the phlogosis was dispelled, but the morbid sensibility of the retina to light still continued. In such cases, the application of belladonna, after depletion, was of singular efficacy in taking off the nervous irritability of the retina. These cases we need not detail; but only allude to the practice, which we believe is adopted by the best oculists of this country.

19. TREATMENT OF HERPES ZOSTER.

M. Geoffroy, of La Pitié, has published some cases of this disease, of which we shall take some notice in this place. Our readers are aware that the lunar caustic has been applied to the variolous eruption by some continental practitioners, and this suggested the idea of making the same application to Herpes Zoster.

Case. F. Venet, was received into hospital on the 21st of August, being of robust constitution and sanguineous temperament, affected with zona for seven days previously. His tongue was yellow—mouth bitter—pain in the epigastrium—bowels constipated—thirst—anorexia—pulse rather quick and sharp.

The zona extended from the vertebral region to the umbilicus, about three inches in breadth—very red, with a number of small pustules scattered over its surface, similar to those produced by the tartar-emetic ointment. This eruption was very painful, and compared by the patient to what would result from the application of a hot iron. On the 22d August, M. Serres cauterized part of the zona with a stick of caustic dipped in water. This operation produced no pain. 23d. The patient says he has had no uneasiness in the part cauterized since yesterday. The part not cauterized has been very troublesome. The same operation was therefore extended to the other portions of the zona, and complete success, with a speedy cure, was the result. Two other cases of a similar kind, and with similar terminations are related.

14. MR. BELL ON ANEURISM.

If the physician is often embarrassed by anomalies of function and idiosyncrasies of constitution, the surgeon does not always find it plain sailing, even when steering by the compass of minute anatomy. Deviations from natural structure will now and then occur, and tend to perplex the steadiest hand and the sharpest knife.

A large and muscular Negro was admitted into the Middlesex Hospital, with a pulsatory tumour rising out between the heads of the gastrocnemius muscle of the left leg. The artery at the groin was very large, and easily felt; and pressure thereon stopped the pulsation in the tumour. This pulsation could not be subdued, however, by pressure on the middle of the thigh. "For these reasons, Mr. Charles Bell stated, that he should tie the artery lower in the thigh than usual."*

The vessel was easily found under the edge of the sartorius, and, when tied, the pulsation of the artery was distinctly felt against the ligature. An arterial branch had been seen going off from the artery just above where the ligature was applied—and this was purposely cut and secured. The pulsation in the tumour ceased the instant the ligature was drawn, but soon returned. Mr. Bell felt the beating, and observed, that, be the cause what it might, he should do no more. The wound was dressed, and the pulsation still continued. Three days afterwards the pulsation suddenly stopped, and the patient became ill and feverish, having cough, and pains through the body. This remarkable impression on the constitution seemed coincident with the cessation of beating in the tumour. In two days after this the patient gradually sunk and died.

Dissection. The whole of the sartorius muscle was affected with inflammation of an erysipelatous character, which had spread along the course of its sheath. Just below the origin of the profunda, the femoral artery divided into two nearly equal branches, which ran parallel to each other till they arrived at the spot where the artery perforates the tendon of the triceps muscle, and here they united again. The ligature had been placed on the more superficial vessel, a little above this union.

In a subsequent clinical lecture, Mr. Bell stated his opinion, that the unfavourable termination was owing to the peculiar condition of the sartorius muscle, and did not arise from the constitution sympathising with the condition of the tumour. We think there can be no doubt that the constitution sympathised with the erysipelatous inflammation of the muscle and its sheath—but we think, also, that the stoppage of circulation in the tumour, and probably in the whole limb afterwards, was the main or efficient cause of death.

Mr. Bell remarks:—"The surprise is now, not that the tumour

* We wish Mr. Bell had stated *his reasons* for this determination. Did he foresee a bifurcation of the artery in the middle of the thigh? We think he did not, in consequence of an expression which he afterwards used, when he found the pulsation continue notwithstanding the application of the ligature.—Rev.

should have continued to beat, but how it should have ceased to beat by a ligature being put only on one of the arteries, either of which was fully sufficient for the circulation of the limb." We cannot discover much cause for surprise at this phenomenon. One half of the arterial current was suddenly cut off by the ligature—and was it unreasonable to expect that a temporary failure of perceptible pulsation would be the result, till an increased current was directed along the other branch of the vessel?—One of these branches might be quite "sufficient for the circulation of the limb," in its then calibre and current, though it might fail to produce the phenomenon of pulsation, till both were augmented.

Could it have been anticipated that a bifurcation of the artery existed in the middle of the thigh, from the experiment made by pressure, as above stated, would it not have been more feasible to tie the artery at or near that part where pressure actually stopped the pulsation, than to tie it "lower in the thigh than usual," with the hope of being below any reunion of the vessels, if such had taken place? This question can doubtless be solved by the ingenious surgeon who was concerned in the above case.

12. INVERTED TOE-NAIL.*

This is a very distressing complaint, and the radical cure, as practised by Dupuytren, is a very severe operation. We believe the chiropodists of this metropolis, endeavour to remedy the evil by scraping the nail very thin, at a little distance from where it turns down into the flesh, or rather where the fungous granulations turn up over the nail. When it is rendered thin and flexible, the edge of the nail turns up gradually, and, by destroying the granulations with caustic, a cure is effected. There are two distinct varieties, however, of this complaint—one, in which the root of the nail and the contiguous integuments are free from disease—one side or angle only of the nail being buried in the integuments. In the other variety, the nail is surrounded entirely by fungous granulations, and its root is diseased. On this distinction are founded two distinct modes of cure. In the former case, the removal of that portion of nail which is covered with granulations, will be sufficient—in the latter, the whole nail, together with its matrix, must be removed.

In the first variety, M. Dupuytren takes a pair of strong straight scissors, one blade of which is very sharp and thin. The point of this blade he introduces beneath the nail, and, by a rapid and adroit movement, slits it up the middle, and thus divides it into two halves. Then, seizing the anterior portion of which ever half is intended to be removed, with strong forceps, he turns it back, and by the aid of the scalpel, dissects it entirely off. The same is done with the other half, should there be disease (as is sometimes the case) on both sides of the toe. After this operation, patients are frequently turned out of the Hôtel Dieu cured, in eight days.

* De la Cure radicale de l'Ongle incarné, par le Procédé de M. Dupuytren. Archives, Juillet, 1826.

Second Method. In this case the surgeon seizes the extremity of the great toe with the finger and thumb of his left hand, while, with a convex bistoury, he makes a semicircular incision a little behind the root of the nail, from one side to the other. He then seizes the extremity of the nail with strong forceps, and, reversing it backwards, removes it and the portion of soft parts anterior to the semicircular incision. By this operation, the root of the nail and its matrix are removed, and there is no danger of reproduction of the disease. The part is to be dressed with cerate after the operation, and if the pain be considerable, some opiate may be put in the dressings, and a cataplasm applied. If the patient keep quiet, a cicatrix will be formed in eight or ten days.

16. DR. GRANVILLE ON GASTROTOMY.

The attempts—one of them successful—which have been made in this country by Mr. Lizars, to remove ovarian disease by an operation, will probably induce many surgeons to hazard the *anceps remedium* of gastrotomy, rather than see their patients die a lingering death. In our review of Mr. Lizars' work, we gave it as our opinion that—"when a diseased ovarium arrives at that size which requires an operation, there must be such adhesions to the neighbouring parts, as to render success, after an operation, next to a miracle.*" Let us see whether this prognostication be confirmed or refuted by Dr. Granville's operation, recorded in the August number of the Medical and Physical Journal. No history or description of the disease, prior to the operation, is given by Dr. Granville. The patient was prepared for gastrotomy by a fortnight's repose, and three days' use of prussic acid—"a passive temperament, and almost total absence of irritability," being considered very favourable circumstances in her constitution. An incision being made through the integuments of the abdomen, the intestines and part of the curvature presented themselves, "in rather a vascular condition;" when Dr. G. passed his hand into the abdominal cavity, and ascertained that—"although the tumours felt loose, when examined externally, they were, in fact, adhering in various directions by strong bands." After some farther examination, in which Mr. Brodie and Mr. Keate satisfied themselves of the above-mentioned state of the case, the enterprise was given over—the wound secured by hare-lip pins—and the patient put to bed. Fortunately this attempt was productive of no fatal consequences, as the woman rapidly recovered, without any bad symptoms.

We leave our readers to make their own reflexions on this case. As far as it goes, it confirms our prophesy—while it adds another to several instances now on record, "of the impunity with which the cavity of the abdomen may be laid open." We would not, however, advise the enterprising surgeon to place too much confidence in this impunity—or to expect that gastrotomy will always, or even generally,

* New Series, vol. 3, p. 336. October, 1825.

be attended with so little inconvenience, in the event of its being deemed imprudent to proceed farther in the operation.

17. REMARKABLE CEREBRAL AFFECTION.

Organic diseases of the brain are amongst the most terrible afflictions to which human nature is liable. When the centre of sensation and the seat of thought becomes altered in structure, the sufferings of the individual call loudly for the grave, as the only refuge from a penal existence of indescribable wretchedness! Such was the case of an unfortunate female in St. Bartholomew's Hospital, under Dr. Latham. For eight months previous to her entry, (22d Nov. 1825) she had suffered pain in her head, which was suspected to be of a syphilitic nature, and was treated by various means, without relief. She had even been profusely salivated. She exhibited a peculiar sense of terror and alarm in her countenance, with a trembling gait, which were found to be owing to a continual effort to give steadiness to the head. She soon became permanently confined to bed, and unable to lift her head from her pillow during the greater part of the day and night. Her pulse was so feeble as to contra-indicate venesection, though the throbbing of the temples called for leeches to the temples, and cupping. The relief was merely transitory. Mercury was again tried, but she grew worse under its administration. Oil of turpentine, quinine, comuri, belladonna, were useless—some of them detrimental. And now a large abscess formed in the axilla, and gave vent to an enormous quantity of pus, the discharge continuing for three weeks, at the rate of a pint per diem. During the continuance of this discharge the agonizing head-ache entirely ceased—the patient left her bed—walked about the ward—and described herself as free from all ailment, exulting in the certainty of restoration to health. Even her medical attendants naturally enough concluded that the previous cerebral pains did not depend on organic derangement of the brain. But as the purulent discharge abated, the former symptoms returned. A large caustic issue was, therefore, established on the inside of the humerus, and a copious discharge elicited. But this was of no avail. Mercury was again given, and salivation excited, without benefit. Death, at length, put a period to the most dreadful state of suffering that can be conceived.

On dissection, the brain and its membranes were found more vascular than natural, and some effusion under the arachnoid and in the lateral ventricles. At the base of the cerebellum, and growing from both lobes, was a tumour which descended beneath the dura mater into the spinal canal reaching as low as the origin of the sixth pair of cervical nerves. It was of the consistence of foetal brain, and the contiguous portions of cerebellum were softened. Some blood was extravasated upon the pia mater of the spinal marrow. No other disease was found.

Remarks. The principal anomaly in this case, was the cessation of the pain and other symptoms, for a time, while the organic disease must,

of course, have existed. Unfortunately for medical science this kind of anomaly is of no infrequent occurrence. We see the functions of organs apparently little, if at all, deranged, while their structure is irrecoverably altered. This we observe in the brain, lungs, stomach, heart, and other parts; and the recollection of this should always keep the practitioner on his guard in respect to prognosis as well as diagnosis. There is another peculiarity in Dr. Latham's case—the intensity of the sufferings, as disproportioned to the extent of disorganization found on dissection. How often do we find an immense mass of disease in the brain, without any thing like a corresponding degree of suffering during life. These are some of the obstacles to *certainly* in medical science. They may, at least, teach us *humility* in the exercise of our profession! —*Med. and Phys. Journ. No. 1, N. S.*

18. DEATH FROM AMPUTATION OF A TOE.*

The danger of an operation is not always in proportion to the magnitude thereof; and death has sometimes been the consequence of amputation of a crooked finger or toe. In the following case there was something very particular, which is worthy of record.

Case 1. Henrias, aged 19 years, perceived, about six months before he entered the Hospital of the Faculty, a slight swelling of the second toe of the right foot. This gradually increased—broke—and an ulcer of bad character formed. When admitted, 4th of May, 1826, it was found that the first phalanx of the toe and the joint were diseased, and amputation was performed, without difficulty, in the metatarsal bone. Union by the first intention was attempted. On the 1st, 2d, and 3d days after the operation, there was some fever. On the 4th and 5th there appeared swelling and inflammation on the back of the foot. This ended in suppuration; and erysipelatous inflammation kept creeping upwards, with fever. On the 9th day the skin was jaundiced—but the constitutional symptoms were not severe. An inflammation was observed on the back of the left hand, where fluctuation was felt, and in another day or two a large collection of pus, of very bad quality, was discharged by an opening made with the bistoury. From the foot, an immense quantity of purulent matter was draining, mixed with blood, and of an insupportable fetor. There was now delirium at night—pulse small and irregular—features shrunk—respiration laborious. He died on the 11th day from the operation.

Dissection. Passing over a minute detail of the appearances in the foot, we shall only remark that the veins leading from the wound were red, thickened, and filled with pus, which was also found in the saphena vein, and in the veins of the left upper extremity, leading from the abscess in the hand. In the head there was no morbid appearance. In the left lung was found a considerable number of small abscesses,

* Hôpital de Perfectionnement. M. Velpeau. *Archives*, Juillet.

varying in size from a pea to that of a nut, and filled with pus. In the left cavity of the pleura there were about three ounces of a yellowish fluid. The ventricles of the heart were empty—but in the auricles some purulent matter was found, mixed with fibrinous concretions. In the abdomen, there was a small ulcer at the ileo-cæcal valve, apparently of some standing, and the glands of Peyer and Brunner were becoming somewhat prominent; but there was no redness or disease of the mucous membrane of the intestines. There was an astonishing vacuity of the blood-vessels generally. Not a drop of blood was seen in the various branches of the vena portæ, and the trunk of the vena cava was lubricated with a puriform fluid similar to that which was found in several other parts of the body. The icteritious colour pervaded not only the surface, but every organ and structure, even the bones, cartilages, brain, muscles, &c. &c.

Remarks. This case is brought forward (with many others) not on account of the fatal termination of an operation, but as a specimen of the pathology of the fluids—or in other words, of the humoral pathology, and the important part which it plays in diseases. Here the whole blood of the body, with the exception of about four ounces, was in a state of decomposition, and every tissue and structure imbued, as it were, with this morbid circulating mass. Our author asks, “can we deny that the alteration of the fluids was the source of the morbid phenomena and the cause of death in this case?” The *latter* part it would be difficult to deny. But a question might still remain, was not this degeneracy of the fluids the *consequence* rather than the *cause* of the erysipelatous inflammation in the foot, the phlebitis, and the admixture of purulent matter with the blood, in the first instance? These questions we leave for the physiologist and pathologist to solve. The case above-related is one which bears strongly in favour of the humoral pathology, so much neglected in modern times.

Case 2. Flevenaux, aged 62 years, entered the hospital on the 8th May, 1826. He had enjoyed good health till two years previously, when he began to feel pain in his bowels, and especially shooting pains while making water. From this period his digestion became much deranged, the pain in making water continuing, but the abdominal uneasiness ceasing. Edematous swellings had commenced for some time, and at the time he entered the hospital, the lower extremities were infiltrated throughout. On examination, the abdomen was found to be distended by a tumour which occupied the upper half, and almost the whole of the left side of that region. Skin pale and blanched, as in anemia—pulse and tongue natural, as was the respiration—alvine secretions scanty—the principal complaint of the patient was want of sleep and pain in making water. Lavements—diluent drink—tepid baths, were at first prescribed—then a grain of opium every night, which procured some sleep. The dropsical effusions gained ground in spite of diuretics. Ascites appeared to obtain—debility increased—and death took place on the 6th June.

Dissection. The head and spine were not examined. The lungs were found to be studded with tubercles of various sizes, containing a substance resembling brain—some of them crude, and others softening down into a fluid state. In the abdomen, there was no effusion—the peritoneum was healthy—the cæcum, colon, and a great part of the small intestines were pressed forward by a tumour the size of a boy's head of ten years of age. The liver was three times its natural size—the other viscera sound. The tumour above-mentioned was formed by a diseased kidney of that side, transmuted into a mass of cerebriform substance, hollowed out into a number of pouches or sacs. In the pelvis of the kidney, and branching into several of the sacs, was a large clot, two inches in diameter, of a pale yellowish substance, unattached to any part, and somewhat resembling the female roe of fish when boiled. The liver presented no mark of inflammation on its surface—it occupied the whole of the right, and most of the left hypochondrium, descending as far as the navel, but without adhesion to any surrounding viscus. The whole of the organ was studded with tumours of cerebriform substance, varying extremely in size, from a hemp-seed to a swan's egg. These tumours were sometimes like tubercles, and contained in cysts—sometimes in a diffused form, infiltrated, as it were, among the parenchyma of the organ. It was all soft. The parenchyma itself of the liver did not appear altered in structure, except from admixture of this cerebriform matter, which pervaded the whole viscus.

There was nothing very particular in the veins of the lower extremities or pelvis. The cava inferior and superior, together with the auricles, contained fibrinous clots, apparently of long standing, and when broken down between the fingers, resembling the cerebriform matter which was found in other parts of the body. The blood itself in the vessels appeared very different from that which is usually seen—but which M. Velpeau declines characterizing. The parietes of the veins were every where sound.

Remarks. It is evident that, in the above case, there was one general constitutional disposition to the formation of this cerebriform matter; but, in what way this morbid tendency was connected with, or dependent on, a pathological condition of the circulating fluids, is more than we can clearly comprehend. It is, however, much more likely to depend on a vitiated state of the fluids than of the solids; but is not this degeneracy of the fluids dependent, originally, on some derangement of *function* in the vital viscera, and especially of the organs of supply—the stomach and the whole digestive apparatus? This appears to us the most probable theory—and moreover the theory which is likely to lead to the best practice, preventive or curative.

19. NITROUS ACID AND OPIUM IN DYSENTERY, &c.

Mr. Hope, of Chatham, has published (Ed. Journ. July, 1826) some observations on this combination. More than twenty years ago, he

was led to its use by accident, and afterwards prescribed it on purpose. Since that period, he has continued the remedy, "with unvaried success," in all cases in private practice. He also experimented on five invalids from tropical climates labouring under chronic bowel complaints, to such an extent, that the medical officer in charge of them considered them as lost cases, and the men themselves had taken the sacrament and were in expectation of death. Three out of the five were cured. In the year 1819, twenty-six men were invalided for dysentery from the West Indies. Fifteen were placed in one ward, and eleven in another. The former were treated with the remedy in question—the latter in the usual manner. Out of the fifteen so treated twelve recovered, and three died. Of the eleven, three recovered and eight died. In the year 1821, our author was surgeon of the *Ganymede*, where many cases of cholera and diarrhoea occurred, all of which were successfully treated by the same remedy. Afterwards, in the *Dolphin*, no less than 264 cases of colic, dysentery, and cholera occurred. Of these not one died, having been treated by the remedy in question; the form of which was as follows:—*R. Acidi nitros. ʒj. —mist. camph. ʒviij. tinct. opii, gt. 40—misc. capiat quartam partem tertiis vel quartis horis.* In chronic dysentery the dose of two ounces three times a day, of the mixture, was sufficient. The remedy is grateful to the taste, abates thirst, removes the intensity of pain, and procures relief of the dysenteric symptoms. The nitric acid was tried, but did not prove effectual like the nitrous.

The remedy above-mentioned has been used in India for twenty or thirty years past—and often with very good effects. But we apprehend that it is not to be relied on in acute cases in hot climates. It is in the chronic bowel complaints succeeding acute, that we have found it beneficial. The acid improves the tone of the stomach and bowels, while the opiate lessens their irritability and restrains the mucous discharges. This, we venture to presume, is the rationale of the effects produced by the combination in question, and the only expectations which can be entertained with safety. Nevertheless we promulgate Mr. Hope's sentiments, and wish every success to subsequent trials of the medicine.

In the same number of our respected cotemporary, Dr. Burke, has presented us with a paper on the good effects of a mixture of acetate of lead and tincture of opium in an epidemic dysentery which prevailed among the lower Irish of the city of Dublin, in the summer of 1825. The formula used (making allowance for age, &c.) was as follows:—*R. Acetal. plumbi, gr. iv. tinct. opii, ʒij. aquæ distillat. ʒij. ft. solutio. capiat æger ʒss. 4^{ta} quaque hora.* Now, when we consider that each dose of this mixture contained thirty minims, or about fifty drops of laudanum, and that every fourth hour, we can hardly be surprised that "the symptoms were mitigated—the tenesmus abated—and the tormina ceased"—or that a patient should describe herself, after the second dose, "as if she were in Heaven." In many of the bowel complaints of

summer and autumn in this country, opium will give relief, and indeed effect a cure. Not that we maintain that the simple exhibition of this medicine is as good as its combination with other agents, as antimony, calomel, &c. On the contrary, we are convinced that the latter is infinitely preferable to the former. In respect to the acetate of lead conjoined with laudanum, we have only to say that it has often been employed, and found useful in weakly habits, and where but little inflammatory action obtained. In the acute dysenteries of warm climates it would not answer, but would be almost certain of doing mischief.

20. PARACENTESIS THORACIS.*

In our ninth Number, we introduced a successful case of this operation, performed by Mr. Jowett, at Nottingham. We now present our readers with another instance which, though not so fortunate, is yet interesting. It occurred in a public institution, and consequently where the particulars have been fully authenticated.

Case. Serry, a Negro servant, was seized with pneumonia of the *right* lung, for which he was bled, blistered, cupped, &c. with apparent removal of the inflammation. The cough, however, continued, and the treatment was neglected. In two months afterwards, he was again attacked with pneumonia of the same lung, of considerable intensity. It was treated vigorously; but as Serry had a bad place to sleep in, he became affected with pleurisy of the *left* side. At this time, examination by percussion shewed the lower portion of the left side devoid of sound, while, above the fourth rib, it was unnaturally resonant. By the stethoscope, the total absence of respiration in the left lung was determined, not only in front, but in the axilla and between the scapula and spine, except very high up where it was indistinct. "These signs were satisfactory evidence that an effusion, both of liquid and air, had already taken place into the sac of the left pleura." Dr. Jackson was convinced, from the absence of any loud sibilant rattle, that the air was not derived from a communication with the lungs, and that the effusion did not consist of pus, proceeding from an abscess that had ruptured in the lungs, but was serum, the result of acute inflammation of the pleura. It is unnecessary to detail the treatment pursued. In the course of a fortnight, all the acute symptoms had disappeared—a copious mucous expectoration was established—the breathing was unembarrassed—the skin soft and moist—and the general feelings comfortable. Exploration of the chest presented no alteration in the left, except that the metallic tinkling had disappeared. In the right lung, a mucous and slight crepitous rattle still existed, and the cough continued. In another fortnight, oedema occurred, together with hurried breathing and dyspnoea on ascending the stairs. On examination with the stethoscope, it was

* Dr. Samuel Jackson. Philadelphia Almshouse Infirmary. Philadelphia Journal of the Medical Sciences, No. 1, New Series.

evident that pneumo-thorax and a serous effusion existed in the left side, which was found to be an inch and a half larger than the right: succussion was also performed, when the splash of a liquid in the chest was distinctly heard.

Operation. This was performed by Dr. Gibson, in the presence of a large class of pupils, at the Infirmary. The incision was made between the sixth and seventh ribs, at the point of their greatest projection. Half a gallon of a clear serous fluid, mixed with some flocculi of coagulated fibrin, was drawn off. The only inconvenience experienced was a severe fit of coughing, induced by the introduction of a gum-elastic catheter. No sooner was the effusion removed than pain was complained of in the pleura, which required two bleedings the same day. Next morning, the symptoms were relieved; but cupping and blisters were necessary. From this time, the pleuritic symptoms gradually declined, and the patient could soon lie on either side. In three weeks, the whole of the left side was resonant, but no respiratory murmur could be heard in any part of the lung of that side. From this it was concluded that the lung had not expanded, but remained compressed by the air contained in the pleura, or from a change in its structure.

Exploration of the right side gave reason to fear that tubercles were developing there, and that phthisis would be the result. The antimonial ointment was rubbed on both sides of the chest, and strict regimen enjoined. From this time, the patient complained of pain in both sides of the chest, and, in ten days more, the symptoms were much aggravated—the pain being permanent and acute—the respiration embarrassed. The left side returned a dull sound below the fourth rib—hollow above that point. The right side was less resonant than natural in its lower portion, where acute pain was felt. On succussion, the splash of a fluid was again discernible. The symptoms of phthisis now became developed. On the 10th February (the operation was performed on the 15th December) the wound burst open, with a loud explosion, during a fit of coughing, and gave vent to a considerable discharge of clear serum containing coagulated flocculi, with relief to the feelings of oppression. The patient died of decided phthisis on the 11th March, upwards of three months after the operation of paracentesis thoracis.

Examination. On raising the sternum, the right lung did not collapse, the left side presented a cavity. The right pleura was inflamed, the lung was solid, containing tubercles in various stages—some of them broken down and evacuated—two cavities, whence the pus had issued, and where pectoriloquism had been heard. The left lung was compressed to one fourth of its original volume, and solidified, but not otherwise changed in structure. The pleura pulmonalis and costalis was covered with a thick coating of coagulated fibrin.

From the history and dissection, it was evident that death was occasioned by phthisis of the right lung, and not by the pleuritic affection

or the operation in the other side. Had this alone existed, it is probable that life might have been saved.

We congratulate our American brethren on their zeal and proficiency in auscultation. They are certainly outstripping, in this respect, the generality of practitioners in the metropolis of Great Britain, where this interesting study is far less cultivated than it deserves to be, owing to the supineness of the higher orders of the profession here. This is an unpalatable potion; but bitter medicines are more wholesome than sweet.

21. MASKED CEREBRAL AFFECTION.

Dr. Chambers has reported, in our respected cotemporary, the case of a woman, Mrs. Miles, whom we attended previously to her admission into St. George's Hospital. When she first applied to us, she complained of discharges of blood from the lungs by coughing. This was stopped by a few doses of super-acetate of lead and opium. She next complained of sickness of stomach whenever she took food, together with pain in the occipital region of the head. Blisters were applied to both parts, and medicines were given to quiet the gastric irritability, but without success. The patient having but bad accommodation in the Little Theatre of the Haymarket, we sent her to St. George's Hospital. There the sickness at stomach and pain of the head were treated with the same want of success as before. There was no tenderness of the epigastrium or abdomen—pulse from 80 to 90—tongue clean—skin cool—bowels constipated. The intellectual functions were never disturbed. Among other remedial agents, she was placed under the full influence of mercury—an issue was inserted in the back of the head—blisters were applied to the epigastrium—opium, subnitrate of bismuth, &c. were given internally—but all to no purpose. At length she died exhausted by the progressive increase of the symptoms. Some curious speculations were hazarded as to the nature of the disease, and one gentleman, who could see deeper than the rest, considered it as a tuberculation of the peritoneum. It was *not* Dr. Chambers.

On dissection, no diseased appearance was found in the stomach or bowels. In the centre of the posterior lobe of the right hemisphere of the brain was a small tumour, the size of a hazel nut, somewhat softer than the contiguous brain. A similar mass was found in the posterior lobe of the left hemisphere. The left lobe of the cerebellum was almost entirely destroyed by the suppurative softening of a similar tumour occupying its interior. The surrounding cerebellic substance was softened, and there were three ounces of water in the ventricles.

This case illustrates well the sympathetic effects of cerebral disease on the stomach. It was of the latter organ that the patient chiefly complained. With all this organic disease of brain, the intellect was unimpaired to the last.

22. BRONCHOCELE—LIGATURE OF THE THYROID ARTERIES.*

We are of opinion that this disease is more common than it was 30 years ago, in this country. However this may be, English women (for it is far more common in the female than in the male) cannot bear with so little impunity as in Switzerland and other goitrous countries, considerable enlargements of the thyroid gland. We know two ladies in this metropolis who are suffering under distressing dyspnoea, in consequence of a bronchocele, which would scarcely be called one among the Alps. One of them is deriving much relief from iodine, while in the other it produces so much distress, when given internally, that she cannot continue it. We recommend to the attention of our brethren the observations of M. Lisfranc, in this number, on leeching in white swellings and mammary enlargements. A small number of leeches will produce excitement in bronchocele, and thus increase the disease; while a large number at once will have a very contrary effect. This we have seen take place unequivocally, of late, in a case of goitre. In many instances all remedies will fail, and then, perhaps, the experiment of Mr. Earle may be worthy of trial.

Case. J. Larking, aged about 18 years, became affected with bronchocele when she was only thirteen, and the swelling, excepting for two years, when she menstruated regularly, has been progressively increasing. In 1822, she was in Bartholomew's Hospital, under Mr. Earle, when the swelling was large, and much inconvenience experienced in breathing and swallowing. Her general health was bad, and attention was paid to this by diet, and by improving the secretions. Under this plan she got a little better, and then left the hospital. In 1823, she returned from the country, the bronchocele having increased as her general health amended. It now threatened suffocation at times, she was wholly incapable of swallowing any solid food—pulse 120—bowels costive—catamenia stopped for five months past—cough and pain in the chest had returned, with constant head-ache and drowsiness. The superior thyroid arteries were much enlarged, especially that on the right side, which led to the idea that its coats were diseased. Leeches—evaporating lotions—the blue pill—and the tincture of iodine were employed—but the latter, producing nausea, was soon discontinued. In a fortnight, it was evident that the swelling had increased, and her breathing was become so extremely laborious that it was clear she could not long survive, if some relief was not obtained. Under these circumstances Mr. Earle threw a ligature round the right superior thyroid artery. The vessel was found to be healthy, but nearly as large as the carotid. The most acute pain in the head followed the tightening of the ligature. The pulsation in the tracheal side of the artery diminished materially, but did not entirely subside. About half an hour after the

* Case of Bronchocele, in which the thyroid arteries were tied. By H. Earle, Esq. of Bartholomew's Hospital. Lond. Med. Journ. September, 1826.

operation, the head-ache continuing, 20 ounces of blood were abstracted, with some relief. Cold applications were made to the tumour, and the head kept elevated. In the evening the carotids were beating with more violence than before the operation. Saline purgatives—digitalis. She passed a bad night; and next day her pulse was rapid, tongue furred, drowsiness amounting to coma. The bowels were opened with calomel and jalap, and 20 leeches were applied to the temples, which afforded great relief. In the evening all the bad symptoms were abated, and the breathing was much easier. She continued to improve. Three days afterwards, the tumour was found to be considerably smaller—respiration and deglutition performed with comparative facility. The pulsation was much reduced—cough nearly gone. In five days more the neck was measured, and the tumour was found still farther diminished. The portion of the artery between the ligature and the carotid had ceased to beat. She could breathe and swallow easier than during the last two years. The ligature came away. She was sent into the country, under the promise of returning, should the tumour increase. In a fortnight she came back, the tumour remaining stationary, but the left thyroid increasing in pulsatory force. This artery was secured also, being healthy in structure, and about the size of the radial artery. Leeches had been previously applied, and her system depleted by saline purgatives. No alarming symptoms followed the ligature. The subsequent diminution of the tumour was not near so great or so rapid as after the first operation. The menses reappeared, after an absence of seven months. In about three weeks she finally left the hospital, having no cough, no impediment in swallowing, and her breathing free. The tumour was evidently smaller and softer, and appeared more divided in texture. In 1824, Mr. Earle heard from the patient, when the tumour was reported to be slowly decreasing, and the patient's health much restored.

This is certainly a gratifying case, as it appeared at one time very threatening. It is curious that the cutting off one artery out of four should have had such an effect, as was the case after the first operation.

28. CANCRUM ORIS INFANTUM.*

This curious and dangerous disease is described in Pearson's Surgery, and copied into Cooper's Surgical Dictionary, under the head of cancrum oris, and characterised as a deep, foul, irregular, fetid ulcer, with jagged edges, and appearing upon the inside of the lips and cheeks of children, between the age of 18 months and six or seven years.

Ever since the establishment of the Children's Asylum in Philadelphia, the institution has been annually visited by this distressing scourge, especially in the winter season, its destructive ravages being marked by

* Description of the Gangrenous Ulcer of the Mouths of Children. By B. H. COATES, M.D. one of the Physicians to the Philadelphia Children's Asylum, &c.—*North American Med. and Surg. Journ.* July, 1826.

an insidious approach and too often uncontrollable progress. But few and scattered notices of this complaint can be found in practical writers, and we do not mean to follow Dr. Coates in his imitation of some modern authors, who cannot describe a single disease or scarcely a symptom of disease, without first piling and compiling together all that has ever been said or thought of the same thing since the flood of Noah. This practice may be the revival of learning, but it will prove the decay of knowledge. People are now afraid to buy, and will not read, books that are composed of the rakings of a musty library, with here and there a solitary fact or original thought. These reflections are not levelled at Dr. Coates, but have been merely excited by his paper. He has been very moderate in his researches, and only occupies six pages and a half with these fashionable specimens of erudition. Some of our modern book-worms would have spanned them out into ten times that space.

Locality of the Disease. The Asylum is built on an alluvial soil, and though well situated in itself, has a marshy ground on its south side.

Description of the Disease. In the majority of cases, the ulcer begins immediately at the edges of the gums, in contact with the necks of the teeth.

"A separation is found here; which exhibits a slight loss of substance at the extreme edge of the gums, and, as far as I have observed, a whitishness of the diseased surface. In some instances, though not very frequently, this is preceded by a slight swelling and redness. In this state, the disease may continue for a long time; and I have reason to believe, that patients have remained thus affected, during the whole period of three months, for which I attended the Asylum. At one time, when the disease was at its height, threatening several patients with destruction, I found upwards of 70 children, out of a population amounting to about 240, more or less affected with these ulcerations. No remarkable change is at this stage observable in the functions of the little sufferer; except a general air of languor and weakness. The appetite and the muscular activity continue, but are somewhat reduced; not sufficiently, however, to disable the child from attending school, taking the air, or continuing his ordinary practices. In this state, no symptoms of irritation have been at all discovered. The skin is cool during the day, no pain is complained of; and no account has ever been given me of any nocturnal paroxysm of fever. It would appear to be purely a state of asthenia. We are, however, by no means certain, that there was no concealed irritation in the system. We were, of necessity, obliged to depend, in a great measure, upon the reports of nurses, and other females; and these were liable to overlook, or mistake for mere weakness, the signs of an obscure disease. In this manner, commencing cases were frequently not discovered, and nothing was done, till the affection had made further progress; and this continued until the ascertained existence of the epidemic in the house, combined

with the recollection of its former ravages, had excited an alarm, which led to the inspection of the mouths of all the children in the institution.

"The disease, in this form, must be within the curative powers of nature; as, if this were not the case, we should hear of more numerous unfavourable terminations. It has seldom, however, if at all, been within my power to witness this tendency; and, when not controlled by a particular treatment, the cases have almost always either remained stationary, or increased in severity. Its first progress is, most generally, by extending to the edges of the gums round other teeth; frequently affecting a large portion of the dental arches. A very early progress is, however, mostly effected, down the length of the tooth, in the direction of the socket; and, in this way, the disease commits great and unsuspected ravages. When it reaches the edges of the bony socket, the tooth begins to be loose, and when drawn, exhibits portions of the fang, including parts which had been contained within the alveolus, entirely denuded of their periosteum. Indeed, from observation, I should say, that the latter membrane was the part, which was the most peculiarly liable to injury and death from this disease; and it is by no means clear, to my apprehension, that this is not frequently the commencement of the complaint. The injury generally proceeds with augmenting rapidity; especially when it has affected the deeper parts; and it is while in the act of rapidly spreading, that it occasions gangrene.

"In the production of gangrenous sloughs, it much resembles the descriptions usually given of sloughing ulcers. A portion of the parts immediately subjacent to the ulcer loses its life; this rapidly separates; and, before or after a complete removal, a fresh slough is formed in the same manner. The sloughs are generally black, with ash-coloured edges. I have not been able to discern a change of colour, the production of vesicles, or any material tumefaction, as antecedent to the gangrene. There is, generally, by this time, an increased heat in the parts; with the sensation termed "calor mordens." The discharge now, for the first time, becomes acrimonious; giving pain when it comes in contact with cuts in the finger; and excoriations are produced on all parts in contact with the sloughing ulcerations; as the lips, the cheeks, the tongue, and the adjoining surface of the part where the ulcer is situated.

"As soon as the external gangrene has reached the level of the edge of the bony socket, and frequently much sooner, the adjacent portion of the latter is found deprived of its life; forming a necrosis. The death of the periosteum in the socket, at least that of the fang of the tooth, precedes, by some interval of time, that of any portion of the bone itself.

"When gangrene is formed, a fever of irritation is generally developed. In regard to the time at which this takes place, there is a great diversity in different constitutions. It has appeared to me to depend, principally, upon the inflammation of the mouth, which is secondary to the original disease, and, in most cases, to arise from the acrimony of the discharge. It is aggravated by loss of rest, want of nourishment, and,

probably, by putrid matter finding its way into the stomach. To the latter cause I also refer a diarrhoea, which almost uniformly comes on, towards the close.

" There are accounts of a similar disease having begun on the inside of the cheeks. I have, however, never seen a well-marked instance of this; the cases which were supposed to be such having, in every instance, been also found to exhibit ulcerations at the edges of the gums. That the disease spreads from the gums to the cheek, is a fact which I have often seen exemplified. It is, indeed, the most usual termination of bad cases. After producing gangrene and necrosis in the gums and alveoli, and after the discharge becomes, as above stated, acrimonious, a gangrenous spot is not unfrequently found about the opening of the Stenonian duct, on the inside of the upper or lower lip, opposite the incisors, in some other part of the inside of the lip or cheek, or in more than one of these situations at the same time. Whether this be owing to excoriation from the discharge, or to some other cause, I cannot say; it has, however, in every instance which I have seen sufficiently early to witness its rise, been subsequent to the symptoms previously described.

" When the gangrene reaches the cheek or lip, however, very active inflammatory symptoms are uniformly developed. In the cellular substance of these parts, they assume the well known characters which have been attributed to the *phlegmonous* species. We have a great thickening, forming, in the cheek, a large, rounded, prominent tumour, with great heat and pain. Sometimes redness is perceived externally; but, more frequently, the great distention of the skin of the cheek seems to empty the cutaneous vessels; giving to the part a smooth, polished, dense, white appearance, very much resembling the effect of a violent salivation. I have no doubt that this is the tumour described by POU-PORT, and alluded to in an earlier part of this paper. Great thickness and hardness have always occurred, in the other situations where this gangrene has approached the external cellular masses of the face; in the lip, however, they are less remarkable, perhaps from the smaller amount of cellular matter. After reaching this stage, a black spot is frequently seen on the outer surface of the swelling. This spreads rapidly; and has always been, in my own experience, the immediate harbinger of death. It is proper to state, however, that I have heard it said, that cases had recovered in this city, in which the gangrene had produced a hole through the cheek. Under what physician's care this occurred, I have never learned.

" In two cases it commenced in the fauces; and was marked by the same unsuspected progress. In one of these, the little patient was remarked to be languid, but had no positive external marks of disease. The mouth was examined, and found healthy; but no suspicion of the real situation of the disease was entertained, till after three or four days more, when he complained of a slight sore throat. A large gangrene of the tonsils, half-arches and pharynx, was now found; and the event need hardly be told.

"The closing stage of this affection is marked by large gangrenous patches in the gums; deep fissures between these and the teeth; the latter loose, or falling out; large pieces of the alveolar processes, often containing the roots of several teeth, in a state of entire necrosis; the whole lining membrane of the mouth suffering a violent excoriation; the whole adjacent external cellular substance, hard and swelled; large gangrenous spots in the inside of the cheek or lips, occasionally extending quite through to the outer surface; a total incapability to sleep, or to take the least food; fever; a swelled abdomen, and diarrhoea". 15.

Our author had an opportunity of examining only one child who died of this disease, and dissection threw no light on the malady.

Pathology. Although, in some cases, there was apparently no premonitory disorder of the system, yet, in many others, the ulceration followed a common remittent or intermittent fever—"insomuch that, at one time, whenever a child was brought to the nursery for fever, it was expected, as a matter of course, that his mouth would become sore." We dare not follow Dr. Coates in his pathological speculations, but refer to his paper those who are anxious on that point.

Our author tried a variety of remedies with little or no success, for a time—at length he was more fortunate.

"The remedy which beyond all comparison succeeded best, was sulphate of copper. The usefulness of this substance, though known at Salem, New Jersey, was discovered, at the Asylum, by the mistake of a nurse. It had been previously used, in lotions of the strength of gr. ij or iij to the ounce of water; and with little advantage. Observing that the empirical remedies said to have succeeded, were, as I considered them, immoderately strong, I furnished the nurse with a common solution of sulphate of copper, and with a vial containing 72 grains of the sulphate in an ounce of water, for the purpose of being progressively added to the others at different periods. This stronger solution was applied, by mistake, instead of the diluted one; and it was the first remedy which had produced a rapid tendency to a cure. I finally settled down, after various trials, in the employment of the following:

"R. Sulph. Cupri, ʒij.
 Pulv. Cinchonæ, ʒss.
 Aquæ, ʒiv. m.

"S. To be applied twice a day, very carefully, to the full extent of the ulcerations and excoriations." 20.

The cinchona is not absolutely necessary; but is useful in retaining the sulphate longer in contact with the gums. Simple ulcerations and small gangrenes yielded promptly to this remedy. The early extraction of the teeth was important—a separation of a portion of the periosteum from the fang, within the socket, was universally found, whenever the tooth was loose. When the tooth was extracted the lotion could be applied, and "the sanatory effect was surprisingly prompt."

In the *New Dictionary of Medicine*, volume 10, there is a description of this disease by Marjolin, to which we may refer our readers. It appears that this affection has been very fatal in the Parisian hospitals. The actual cantery has been employed with success, in several instances; the muriatic acid was the most general remedy. Marjolin avers that he cured three cases by the mere application of common salt.

24. PHAGEDENIC ULCERS.*

Mr. Babington, in his official situation at the Lock Hospital, has opportunities of seeing the various forms of syphilitic disease on an extensive scale. We hope he will, from time to time, communicate the results of his experience through the excellent channel which is now opened to the medical officers of public institutions. Three cases are detailed in the last number of our esteemed cotemporary, illustrative of phagedenic ulceration, and the different modes of treatment occasionally required.

The first case was treated with mercury. A young woman was admitted on the 29th January, 1825, with a sloughing sore that had destroyed the extremity of the urethra, extending up to the clitoris, and spreading rapidly. Its surface was dark, and the surrounding parts tumefied and of a bright red colour. It commenced a fortnight previously, near the orifice of the urethra, and thence extended with rapidity. She was ordered five grains of blue pill twice a day—an aqueous solution of opium and bread poultice to the ulcer—and fumigation with cinnabar. The pain was not relieved, and the fumigation distressed her. The blue pill was continued, (omitting the fumigation), and one grain of opium given every four hours. This relieved the pain, but produced no change in the sore. On the fifth day, the gums were tender, and then there was a manifest improvement in the sore. The medicine was continued, with a diminution of the opium. On the seventh day, the sore was clean, the tumefaction nearly gone. The opium was omitted altogether. The progress of the cicatrization was regular but not rapid, as the mercurial action could not be kept up in a sufficiently free manner, owing to an ulceration round one of the dentes sapientie. It was necessary to compensate for deficiency of effect by prolongation of the course. In a month the sore was quite healed, but the blue pill was continued for another fortnight.

Case 2. S. Starkey, aged 20 years, was admitted on the 21st April, 1825, with a large foul sore on the inside of the right thigh, not far from the pudenda. It was larger than a cleft orange, very dark and foul on the surface, and surrounded by an inflamed border of a dark red colour—edges tumid and everted. The pain was constant and severe, almost entirely preventing sleep. The ulcer had commenced three weeks previously, in the shape of a common pimple. Its increase had latterly

* G. Babington, Esq. Surgeon to the Lock-Hospital. *Med. Journ.* September, 1826.

been rapid, with proportionate pain. She had a discharge, and also a small sore on the labium pudendi. One grain of opium every four hours—aqueous solution of opium—bread and water poultice. 22d. Pain subdued. 23d. Free from pain—aspect of sore improving—opium only every six hours. 26th. Healthy granulations—opium *ter in die*. 29th. The pain returned, and the sore again unhealthy. Opium every six hours. The sloughing was soon arrested by the opium, but the sore was languid, and the granulating process slow. The opium was continued, and a pint of the Lisbon diet drink given daily. May 12th. A violent diarrhoea came on, supposed to be owing to the long-continued use of large doses of opium. This was accordingly omitted—and some tincture of ginger was added to the sarsaparilla. The disorder of the bowels ceased; but the pain in the sore returned with as much violence as ever; and it began again to slough, with great rapidity. The tincture of opium was now substituted for the substance, and given in doses of twelve minims every six hours. The disorder of the bowels did not recur—the pain soon ceased—the sore assumed a healthy aspect—and the general health improved under the sarsaparilla. At the end of a month, the ulcer was reduced to the size of a shilling, but it was not healed till the 21st of June.

Remarks. As this sore was of a syphilitic nature, as much as the one previously described, we see no good reason why a similar treatment should not have been *tried*, at least during some part of the time. It cannot be averred that mercury would here have aggravated the complaint at any period, since there was no attempt made to administer it. The case proves, no doubt, that these sores will heal under opium and sarsaparilla—or indeed without any other medicine than that which may be necessary to regulate the bowels, with low regimen. But the question still recurs, which mode of treatment is the best, not only for the immediate cure, but for the subsequent security?

Case 3. John Bourke, aged 24 years, admitted 14th Jan. 1826, with an extensive ulcer in the right groin, formed by a bubo that had burst a month previously. The surface was unhealthy, the edges becoming jagged and irregular. There was another ill-conditioned sore on the scrotum, and also a primary one on the glans penis. He appeared to have passed through a course of mercury before admission; “but as the effect had been violent, it was uncertain whether it had been conducted with sufficient regularity.” At this time, however, the state of the sores and of the general health precluded mercury—at least for the present. A pint of sarsaparilla decoction daily—and linseed poultices to the sores. 21st. The ulcers shewed some disposition to spread—tongue furred—pulse quick—skin hot—whole system disordered. Sarsaparilla discontinued—to take saline draughts, with 30 minims of the *vinum antimonii*, and a drachm of sulphate of magnesia three times a day. 24th. The pulse less active, but the tongue still foul, and the sores sloughing. The *mistura cinchonæ* with half a drachm of the

sulphate of magnesia thrice a day—treacle to the sores, and over that a bread poultice. 28th. Sores rapidly extending and sloughing—tongue furred, and assuming a darker appearance—restless and sleepless. Medicines to be continued. 31st. Sloughing process still continuing with rapidity—hæmorrhage this morning from the sore in the groin to a considerable extent, but not from any of the large blood-vessels. The pulse is greatly depressed—countenance pale—tongue dark and dry. Bark mixture, tincture of ginger, every six hours—muriatic acid, diluted, to the sore—fifteen grains of Dover's powder at night. Feb. 3d. Sloughing continues—muscles of the thigh exposed—tongue still black—pulse depressed. Two grains of the sulphate of quinine were now given every three hours in pills, with a draught of infusion of roses well acidulated.† Feb. 11. The sores have been spreading less rapidly—surface red, but granulating slowly—pulse weak—tongue clean—appetite good. The quinine was continued till the 8th of April, and the sores were all healed by the 21st May.

There can be little doubt, we think, that the quinine, in this case, was the principal mean of saving the man's life. It is to be deplored that adulteration of this valuable medicine is now carried to a great extent. We understand that preparations are making on a large scale by a house in the city for the manufacture of the sulphate of quinine. The price of spirit, however, will be a great draw-back on the British chemist.

25. SURGICAL REPORTS OF M. ROUX.*

The reporter, on this occasion, is M. Velpeau, "Chef de Clinique," who avers, "without fear of contradiction, even by foreigners," that the Parisian hospitals constitute the finest philanthropic institution in the world—"la plus belle institution philanthropique qui existe dans le monde." We are too polite, even as Englishmen, to contradict our Parisian confrere, but we cannot help thinking that the asseveration would have sounded quite as well in the mouth of a foreigner, as in that of a "chef de clinique." M. Velpeau observes that, notwithstanding the vast mass of records carefully compiled in these hospitals by diligent and zealous students, the great majority of them are entirely lost to science. The registers, it is true, are open to all enquirers, but who can wade through the chaos of histories and details in search of that which he wants? On this account M. Velpeau thinks that the only way to render hospitals useful to the profession at large is to charge some individual with the task and responsibility of reporting the practice of one medical officer—"si, dans chaque hôpital, quelqu'un se chargeait de faire connaître les principaux faits qu'on

† We would recommend that the sulphate of quinine should never be given in pills, especially in such states of the constitution as above described, where the digestive power must be almost annihilated. Where can there be a more excellent form than the quinine in the acidulated rose-leave draughts?

* Hôpital de la Faculté. Archives, Juillet, 1826.

y observe, et d'exposer les regles de pratique adoptées par chaque chirurgien," &c. We are quite convinced that this is the only plan of getting a fair, full, and impartial report of hospital cases. It is not every raw pupil who runs round the wards of an hospital, that is fit to draw up the histories of diseases therein contained. It must be an intelligent, well-qualified, accredited, and responsible pupil, having, at all times, access to the patient, to his nurses, and to the dispensary of the hospital, who can investigate the previous history, and faithfully record the daily progress of a disease. A mere catalogue of certain prominent symptoms and principal prescriptions is not the history of a case, and never can be a record of much use to the public, for the truth of which we appeal to every man of clinical observation. We perfectly agree with M. Velpeau, therefore, in the sentiments which he expresses at the commencement of his report.

The hospital of which we are now speaking is destined almost exclusively for operative surgery, and it is here that pupils are taught and permitted to operate on the *living* body, under the guidance of M. Roux. We wish that something of this kind could be effected in this country. But the economy of hospitals being more a *parish* than a government concern, in this land of liberty, we fear the thing can never be done. In the reports which M. Velpeau makes, he is sanctioned by his superior in mingling his own personal observations and experience, by which the said reports may be much enriched.

1. *Excision of the Tonsils.* M. Roux prefers a straight probe-pointed bistoury to the scissors. While the jaws are kept asunder by means of a piece of cork, a hook is plunged into the enlarged tonsil, and it is cut out from above downwards, by the bistoury.

2. *Fistulous Ulcers.* M. Roux evinces some peculiarities of practice in fistulæ. When sinuses, for instance, run along under the integuments on the extremities, or elsewhere, he not merely lays them open their whole length, but excises a portion of skin over their track, by which means, he avers, they heal much better. So in fistulæ about the anus:—he gives himself very little trouble in searching for the opening into the gut—for sometimes this is several inches from the anus—he therefore pushes the bistoury through, and divides the fistula. If there are several sinuses about the verge of the anus, he slits them open in all directions, and cuts away the flaps of loose skin, making a large sore, which, however, soon heals. It is in this way he treats, with great success, it is said, those fistulous openings which so often remain in the breasts of females after milk-abscesses.

3. *Deep-seated Abscess.* Inflammation of the cellular tissue round the femur near its tibial extremity is a dangerous disease. The anatomical disposition of the parts favours the production and collection of large quantities of matter that spread far and wide, separating the muscles and denuding the bone. Death is generally the consequence.

M. Roux has proved that some cases may be saved by very bold incisions, and subsequent tight bandaging.

Case. A boy, 12 years of age, was brought into the hospital on the 10th of December, presenting an enormous swelling of the right thigh, of a fortnight's duration. Poultices were applied for a few days, when M. Roux thought he could perceive some obscure and deep-seated fluctuation. An incision, four inches in length, was made parallel with the sartorius, and terminating a few inches above the knee. He divided, in succession, but cautiously, the skin, the cellular membrane, the aponeurosis, and the vastus internus muscle, when the knife entered the abscess, and nearly two pints of matter were discharged. The next day a counter-opening was made on the opposite side—some bands (bridges) divided—and a large seton passed through behind the femur. The suppuration was great, but the little sufferer's strength was kept up, and, by a judicious use of bandages afterwards, the case was brought to a favourable conclusion.

20. DISEASE OF THE TESTICLE.*

The exact nature of swellings in the testicle, no more than in any other part, cannot always be ascertained by the most experienced surgeon, till the scalpel unravels the mystery.

A man was admitted into St. George's Hospital, on the 12th July, 1826, the left testicle being enlarged to the size of a goose's egg, and of an irregular oval form—tumour ponderous, and hard to the touch, with here and there some indistinct feeling of fluctuation—no pain or tenderness in the testicle itself—slight pain in the back. The complaint began three months previously, without pain, and gradually increased to its present state. A puncture was made with a sharp instrument, but no fluid was found. The patient was next put on a course of mercury, till the mouth became sore, but without benefit, as was, indeed, prognosticated by Mr. Brodie. The testicle was therefore removed in the usual way, the vessels being secured by separate ligatures, after the division of the chord. In two or three days from the operation, there were symptoms of thoracic inflammation, which gave way to the usual remedies.†

On dissection of the testicle, the morbid structure was found to consist of two parts—first, a multitude of small hydatid-like cysts, containing serum—secondly, a grey, firm substance, of a somewhat ligamentous structure, in which the cysts were imbedded. The glandular structure of the testicle was entire and unchanged, but occupying every where the circumference of the tumour, and forming a thin layer

* Mr. Brodie, St. George's Hospital, Med. Journ. September, 1826.

† So it is stated in the report, brought up to August 13th. But we have learnt that the man died about a fortnight after the date of the report, of intense peritoneal inflammation. It is worthy of remark, that some of the mesenteric glands were found to be affected with the same disease as that in the testicle, forming a strong presumption that there prevailed a constitutional tendency to this morbid process—a fact denied by some very high surgical authorities in this metropolis—*Ed.*

on its surface. The epididymis was also sound, as was the spermatic cord.

In the same journal Mr. Brodie has given us some particulars of a fungous tumour on the back, arising from a scratch. The patient was a man about 54 years of age, admitted into the hospital on the 19th April, 1826. Having been once severely flogged in India, he carried the scratch of the boatswain's cat, ever since, in the form of a cicatrix, which, however, was unaccompanied by any pain. His health was good, until he accidentally scratched himself with his finger-nails, about four months previous to the date above-mentioned, at which time, the part bled and afterwards degenerated into a sore, whence a fungus sprouted out, attended with severe lancinating pain and offensive discharge. The tumour had recently enlarged considerably, and the man had lost flesh. The surface of this fungus was irregular, and divided into a multitude of small portions, giving the whole an appearance of a large warty excrescence. The skin, in the neighbourhood, was of a dark red colour, and covered with small tubercular projections. On the 24th April, the tumour, with a small portion of the surrounding skin, was removed by the knife. There was not much hæmorrhage, and the part was dressed with dry lint. The wound healed rapidly, and the patient was discharged, cured, on the 7th of June.

We should be glad if Mr. Abernethy, Dr. Good, or any other distinguished classifier, would give to this tumour—

“A local habitation† and a name.”

Considering the number of warty excrescences which bristled on the back of the tumour, we believe the name of “*cat o' nine tails*” would be as proper as any we could give it. At least, if Dr. Good will turn this into Arabic, it will answer the purpose perfectly well.

27. POLYPHAGIA.*

Jacques de Falaise, æt. 62, a stone-cutter, in the quarries of Montmartre, and of a very muscular habit, had been always blessed with a tolerable appetite, not, however, an unnatural one. One day, after drinking deep, he was challenged to swallow a bullfinch alive, which he did instantaneously. After this feat, he was strongly urged by his comrades not to bury such talents in obscurity, and his fame reaching the ears of one of those theatrical gentlemen, yclept managers, who love to encourage merit in every shape, he was engaged at one of the Parisian playhouses for 400 fr. per annum to swallow publicly whatever was put before him. He commenced his career by *bolting*, for eat them he did not, birds, flowers, even pieces of money. Being advertised once to swallow 60 five-franc pieces, he proceeded as far as 40 to the no small consternation of the contributors, who saw enough to prevent them from

† We suppose, from the emphasis, which is laid on the expression “*at present*,” that the cast of this tumour is not meant to remain where it now stands—in the museum of the College of Surgeons.

* M. Beaudé. Hôpital Beaujon. Nouv. Biblioth. Juin, 1826.

risking the remainder. Frogs, cray-fish, eels, adders, all came alike to this living Charybdis, but the pain arising from the motions of the animals in his stomach induced him latterly to crush their heads with his teeth before gorging them. This could not continue for ever; he entered the hospital Beaujon for a gastro-entérite, under which he suffered for several months. On his discharge, however, he resumed his old trade; but after a time, what with the effects of his "professional duties," and what with chagrin at being robbed of his savings, he re-entered the hospital with a more dangerous gastro-enteritis than before.

After a long and painful illness he recovered, and accepted a situation in the hospital. His temper now became soured, and, on the 30th March, after spending the evening in a tavern, he hung himself.

Dissection, 24 hours after death. The pharynx and œsophagus were much enlarged. At the cardiac extremity of the latter were three small tubercles, arising from, and apparently of the same structure as the mucous membrane.

The stomach was much distended by a nauseous mixture of half-digested aliment, wine, and three playing cards, which he had probably swallowed at the tavern. The mucous coat of this organ was sound, but the muscular fasciculi were developed in an extraordinary manner, especially towards the cardia. The pyloric orifice was enlarged.

The ileon, at its lower extremity, presented three or four patches, where the mucous membrane appeared to be destroyed, and the other coats were so thin as to be quite transparent. In the cæcum were numerous large cicatrices of ulcers, originating, no doubt, in the gastro-enteritis, which the patient had laboured under. The liver was very large.

Such are the principal circumstances of this case; a remarkable one as instancing the manner in which the digestive organs may be set at defiance, one might almost say, with impunity. Is it not strange that after throwing into the stomach, as this man did, literally whatever came in his way, there should be found, on dissection, merely a few remains of old ulcers, the frequent consequences of a common fever? So it is, however, that, while one man can scarcely take a scruple more than his allowance, without suffering severely, another can swallow five-shilling pieces with little apparent mischief.

26. URINARY CALCULUS.

The instances on record of extraction of urinary calculi from the female bladder, by dilatation of the urethra, are now numerous. Mr. Chevalier has added one to the list. The patient was a girl, only 16 years of age, who applied at the Westminster Dispensary, in January, 1825. She had been complaining for several years, of lancinating pains about the bladder, especially when making water, (which was sometimes bloody,) together with pains in the loins and other symptoms which rendered her life miserable. She had been sounded at the Middlesex Hospital, and a calculus detected, but she would not submit to an ope-

ration. Mr. C. felt the stone, both with the sound and with the finger introduced "per vaginam." An attempt to introduce the smallest sized dilator urethrae failed, and a phimosic dilator was next employed, and opened to the extent of three-fourths of an inch. We need not detail the many processes which were gone through, no doubt with all possible dexterity, till the enemy was dislodged—and a very rugged enemy it was, the nucleus being composed of lithate of ammonia and oxalate of lime, surrounded by a mulberry calculus, projecting in noduli of more beauty than kindly qualities. The calculus is more than an inch and a quarter in diameter, and the safe extraction of such a monster does great credit to Mr. Chevalier. The inflammatory consequences of the operation were not more severe than might have been expected, and were so judiciously combated that, in a short time, the urethra had nearly regained its natural dimensions, and the healthy function of the bladder was apparently restored. But a sinister train of symptoms afterwards occurred. Incontinence of urine first appeared, and next a complete retention, till a slough came away, and then incontinence of urine resumed. It took upwards of three months for her complete recovery from the incontinence, and a still longer period elapsed before she was able to retain more than half a pint of water at one time in the bladder. At length she recovered completely.

The history of this, and, indeed, of some other cases of extraction of calculi, through dilatation of the female, impresses us, as it has done Mr. Chevalier, that (where the calculus is large) no patient would submit to it, if previously aware of the amount of suffering which was to be endured. Nothing but the great risk of subsequent incontinence of urine can make it desirable to prefer the dilator to the knife. Mr. Chevalier respectfully suggests to the profession the high operation in preference to either the common operation of lithotomy or dilatation. He observes that, "with proper management, it must be a safer operation in the female than in the male," and he knows of "nothing to prevent its being perfectly safe and perfectly successful"—while it is only of a few minutes duration. We hardly expect that this suggestion will be acted on; nor do we think that the high operation, either in male or female, can ever be rendered so safe a measure as Mr. Chevalier seems to anticipate. The difficulty and pain of extracting large calculi, per urethram, must make it a great object with practitioners to perform this operation at an early stage of the growth of these foreign bodies; and, to this, they should look in time.—*Med. Journ.* September, 1836.

DR. M. LIEFRANC ON SCIRRHUS.*

M. Liefranc has given some clinical reports on scirrhous of the female breast, in the treatment of which he applies the same principles as are developed in his report on white swellings, already published in this Journal. The loechings are managed in the same manner, and the same

* M. Liefranc. *La Pitié*.—Archives, Juillet.

views are entertained respecting the excitant and sedative effects of their application, according as a small or a large number are used. We shall here state a case which is not devoid of interest, on several accounts.

Case. Catherine Martin, 19 years of age, of lymphatic temperament, had not been regular for 15 months previously. In April, 1825, she felt some pain, and perceived a small hard tumour in the right breast. This increased in size, and a surrounding engorgement took place, till the breast attained twice the size of the other. In this condition the breast felt as consisting of several tumours—or, in other words, *tuberculated*. There were lancinating pains—two or three small abscesses formed, and on the 9th September she entered La Pitié, the breast being then hard, shining, very large, tuberculated, adherent to the chest, the nipple sunk and non-apparent, skin discoloured and adherent to the subjacent parts, discharge of ill-conditioned pus from three openings, intermittent pains of a severe and lancinating character, with sense of burning heat—in short, the general symptoms presented where amputation of the breast is recommended. M. Lefranc not wishing to have recourse to the knife, without a trial of other means, directed fifteen leeches to be applied, and then emollient cataplasms. During each of the ensuing four days the same number of leeches were applied, and then six were applied every fourth or fifth day. In this way ten applications were made altogether, and the poultices were continued. No benefit resulted from this plan, and five new abscesses opened, discharging bad matter, mixed with a cheesy substance. As soon as one abscess healed, another broke out in its neighbourhood. Mercurial frictions were now tried, and were followed by increase of inflammation and swelling. The frictions were discontinued, and poultices repeated. On the first of October, frictions with the hydriodate of potash, in the quantity of half a drachm at a time, were commenced, and in a very few days, it was observed that the volume of the breast was diminished. The quantity of iodine was then increased to a drachm—and, in ten days, to a drachm and a half. Under this treatment the breast diminished in a rapid manner, and became soft in proportion—the pains ceased—the discharge diminished—and, by the end of October, the two breasts were of equal size, and the patient left the hospital cured.

Remarks. This case shows that when antiphlogistic measures have failed, we are not to have recourse to the knife immediately, as the disease may still be scrofulous and not cancerous, as was evidently the case in the present instance, notwithstanding the lancinating pains, the disappearance of the nipple, and other suspicious symptoms. The treatment pursued was, we think, judicious. The iodine frictions, we have no doubt, were much more efficacious after such repeated leechings, than they would have been, had no such preliminary treatment been employed.

50. INJURIES OF THE HEAD.

In the last Number (3, new series) of the Medical and Physical Journal, Mr. Jeffreys has detailed four cases of injuries of the head treated at St. George's Hospital. We shall give a short sketch of three of these.

Case 1. A coachman fell from his box in a state of intoxication, and was brought into the hospital stupid and insensible, with a small wound, but no fracture, of the left temple. The wound was dressed, and he was ordered a senna draught next morning. He slept sound all night, and was still heavy and drowsy next day. The pulse being now full and quick, he was bled to 12 ounces, and had a dose of calomel and James's powder, followed by a black draught. The pulse sunk after bleeding, but rose in the evening, and he was bled again, and well purged. It was found that he had lost the sense of hearing in both ears. Blisters, low diet, and frequent purging had little effect, and he left the hospital, without recovering the auditory function.

Case 2. A man, sixty-three years of age, fell down stairs, and was picked up insensible, presenting a lacerated wound of the scalp, three inches long, over the right parietal bone, which was not denuded. When brought to the hospital he had nearly recovered his senses. A senna mixture every four hours till it operated. Passed a good night; but next day (April 6th) he complained of pain in his head—bad dry, furred tongue—quick, full pulse. Twelve ounces of blood from the arm—bowels to be kept open—low diet. By these means the head-ache was relieved, and every thing seemed to be going on well till the seventh day, when he fell into a stupid, semi-comatose state—and had a dry brown tongue, with quick, but not full pulse. Bled to ten ounces—purgatives. Next day (8th from the accident) he continued in the same state—pulse quick and intermitting—tongue very dry—involuntary discharge of urine. Venæ. ad 3x. soon after which he became delirious, and so violent that it required three men to hold him. A large blister over the head. In the evening more tranquil—answers questions rationally. Next day, the improvement continued. On the 10th day, there was return of pain in the head—pupils sluggish—pulse quicker than natural. Bled to ten ounces. Was more sensible in the evening, but had a restless night. 11th day. He was still sensible, and the wounds looking well—pulse very low and irregular—in the night delirious. 12th day, comatose. 13th, erysipelas of the face, and in the evening he died.

Dissection. On the side opposite to the wound there was found an extensive fissure in the parietal bone, descending through the temporal bone, and terminating at the cella turcica. It also passed across the sagittal suture to the middle of the right parietal bone. Upon the dura mater, on the left side, under the fracture, was a deposit of coagulated blood, of the thickness of a dollar, and two inches in diameter. The dura mater itself was not inflamed; but the tunica arachnoides was injected with red blood; and between it and the pia mater there was a copious effusion of coagulable lymph, and some serum. The sternum was fractured.

Remarks. It is not likely that any treatment would have saved this case; but we submit it to Mr. Jeffreys' better judgement whether,

in such cases, a more copious depletion from the vascular system, in the *beginning*, might not save a good deal of mischief subsequently. In concussions as well as fractures of the cranium, the moment re-action begins to shew itself, we can hardly be too active in our depletive measures; for surely it is much more easy to prevent inflammation, or to arrest its progress in its first stage, than control it afterwards, when the sensorial powers are oppressed by the extent of the disease. There could not be more unequivocal evidence of intense meningeal inflammation than the foregoing case presented; and we doubt whether the abstraction of twelve ounces of blood in the first seven days was sufficient to prevent the terrible phenomena which then developed themselves. Nothing can be more insidious than inflammation within the cranium after concussions and fractures—and the danger is far less in erring on the side of copious early depletion, than in the opposite error. We cannot but think, also, that surgeons are remiss in not using auxiliaries to depletion with a more liberal hand. Antimony and colchicum control vascular excitement in no mean degree, and should never be overlooked in such cases. Blood-letting is a *sine qua non*, but it is not the *unicum remedium*.

Passing over the third case, we shall advert to the fourth.

Case 4. A youth, 16 years of age, received a kick from a horse in the face, by which he was stunned for about five minutes, and then walked to the hospital. On his arrival he was sensible and collected, but blanched from the hæmorrhage. There was a semi-circular wound across the right eye-brow and root of the nose. The ossa nasi were broken to pieces, and driven inwards, and there was a fracture of the superciliary ridge extending into the frontal sinus and within the orbit, with very slight depression of the orbital portion of the superciliary ridge. On sponging the wound, a very small portion of medullary matter was perceived. The wound was dressed—a spirit lotion applied—and a senna mixture prescribed. The accident happened at 7 o'clock in the morning. At 2 P. M. he complained of pain across the forehead, and was beginning to be restless—pulse 80. Bled to 12 ounces. At 7 in the evening, he had a cathartic of calomel and jalap which operated, and he slept much in the night, occasionally awaking in a state of agitation. Next morning he was collected and quiet, complaining of slight pain in the forehead—tongue rather dry—pulse 108. He was again bled, and purgative medicine prescribed. Towards evening he got restless, and talked incoherently. At half-past six he became unmanageable, with oppressed breathing, and suddenly expired.

Dissection. The fracture extended through the frontal sinus, and along the superciliary ridge into the orbit. The orbital process of the os frontis was broken and splintered, some of the fragments being driven through the dura mater, and lodged in the substance of the anterior lobe of the brain.

We will make one more remark before we take leave of this subject—namely, that we consider it useless, perhaps injurious to bleed before

any reaction takes place, in cases of concussion or fracture, because we believe that it thus rather tends to increase than to diminish subsequent excitement. But whenever reaction commences, then we should deplete freely, and meet every rising of excitement by the most vigorous means. Local depletion by leeches, and artificial cold to the head are not sufficiently used by surgeons in this country.

31. CURIOUS CASES OF PARALYSIS.*

If there is any one part of the human fabric more involved in obscurity than another, it is the nervous system. Much as has been done in this country by Monro, Philp, and Bell, as well as by Majendie, Spurzheim, and others, on the Continent, it must be confessed that more, much more, remains behind, before we can get any comprehensive views of that stumbling-block to the physiologist, aye, and to the practical physician—the nervous system. It is only from an extensive collection of well-authenticated facts that any tolerably accurate inferences can be drawn. To this end, M. Velpeau, a man of talent and eminence in the French capital, has published a memoir on some extraordinary cases of paralysis, the gist of which we shall lay before our readers.

Case 1. Huette, æt. 52, a nurse, of strong constitution, at the age of 30, suffered from malignant fever, after which she continued well till her 48th year, when her menstruation became irregular, and phthisical symptoms succeeded. In the morning of the 12th January, 1825, without any previous disturbance whatever of the intellectual functions, she was suddenly seized with hemiplegia of the left side. On her admission into the Hôpital de la Faculté, on the 13th, the limbs of the left side appeared completely paralyzed; the tongue and head were turned rather to the left; urine abundant, and both it and the motions were passed without the knowledge of the patient; abdomen somewhat swollen and tender; face livid; little thirst; pulse regular; respiration laborious; the intellectual functions preserved their integrity. From this day she became weaker and weaker, and in the evening of the 18th, she died, the right side still maintaining its sensibility.

Dissection, 36 hours after death.—The left arm and both lower extremities were œdematous. On opening the cranium, the longitudinal sinus was found congested—the pia mater was injected. The mass of the brain was found remarkably firm—the commissura mollis almost as dense as the skin, and very elastic.—The ventricles were dry, and the plexus choroides had contracted a few insignificant adhesions with the surrounding parts.

About the middle of the cervical portion of the spinal marrow there appeared a cleft about an inch in length; from the left side of this a smaller transverse fissure proceeded to the extent of about three lines. On turning up the external border of this fissure, there was seen a cavity, three inches in length and two or three lines in breadth, in the centre

* M. Velpeau. Clinical Report of the Hospice de Perfectionnement. *Revue Médicale*, May, 1826.

of the right column of the spinal marrow; this cavity contained a reddish, diffuent, and almost purulent kind of bouillie, apparently the grey substance of the marrow converted into pus; its walls were firm, and about a line and a half in thickness. In the left column, opposite the first, was found a second cavity, an inch long and a line broad, which contained a semifluid matter, which appeared to be the cineritious substance slightly softened. The spinal marrow, especially the cortical portion, was rather hard. It may be mentioned that the dura mater in the lumbar portion of the vertebral column presented three yellowish, and seemingly osseous patches in its substance.

Remarks. The hemiplegia in this case, observes our author, is not explained satisfactorily, either by the pathological condition of the head or the spine. A woman is seized suddenly with total paralysis of the left side, and, in six days from the seizure, she expires. The intellectual functions have never been affected, and the brain is found, on dissection, to be much firmer than usual. Another person dies insane, the surgeon comes and finds, perhaps, the brain preternaturally firm, and this he sets down as the undoubted cause of the insanity: so that what has no effect at all on the faculties of one, is affirmed to destroy the senses of another. Look to the spine—the paralysis was of the left side only, and yet disorganization was found both in the right and the left column of the medulla. Some physiologists are of opinion that there is decussation of these columns, and M. Portal relates a case in support of it.

A woman had long been afflicted with hemiplegia of the left side, and died comatose. On examination, he found the arachnoid and pia mater much inflamed in the loins; the spinal marrow reddened and soft on the right side, apparently quite healthy on the left.

Now, assuming that there is decussation, the disorganization in the right column will explain the hemiplegia of the left side, but the right side ought also to be affected, for the left column of the medulla was disorganized likewise, though certainly not to the same extent. Again, it is difficult to account for the suddenness of the attack, and the want of previous symptoms, for both the morbid processes in the cranium and vertebral column must have been slow ones.

Case 2, from Portal. The Marquis de Causan became affected with tingling in the fingers of the right hand, and toes of the right foot. This gradually increased to paralysis, first of the right side, then of the left; sight and hearing were the next faculties that were destroyed—deglutition became difficult; the respiration became oppressed, the pulse sunk to 40, 30, 10 pulsations in the minute; at last life's taper was slowly burnt out. On dissection, the medulla of the cervical portion of the column was found hardened, and even cartilaginous. Every other part was natural.

Remarks. Here we see that the very cartilaginous condition, in different organs indeed, which had no effect upon one patient, was the cause of all the symptoms in the other. Even here there are some ano-

malies. How is it that the nerves of sight and hearing, which do not depend so directly upon the spinal marrow, were destroyed long before the respiratory nerves, which apparently have an immediate dependence on the medulla? Mr. Charles Bell's view of these nerves would seem, in some degree, to explain the matter, for he makes them arise from a column quite distinct and separate from the common voluntary nerves.

Case 3. This is related by M. Bretonneau, a physician whose name is a sufficient guarantee for its authenticity.

Mad. M. was seized with paralysis of the little finger of the left hand, which gradually extended to the whole of that side; the right side became similarly affected, with the exception of the thumb and two fingers. The whole body was thus stricken—the tongue was motionless—deglutition extremely difficult, her intellectual functions remained unimpaired, and she could express her wants by the thumb and fingers of the right hand, the motions of which continued to the last. So she died.

Dissection, 30 hours after Death. The only discoverable lesions in the brain were between two and three ounces of serum in the ventricles, and, on cutting the tuber annulare, there was seen a rust-coloured spot, about three lines in breadth and one in depth; its circumference was irregular, and it lost itself insensibly in the nervous matter. No other disorganization could be found on the minutest examination of the brain, spinal marrow, and nerves. One third of the left lung was hepaticized, and under that part of the peritoneum which covers the uterus, two small, white, fibrous tumours appeared.

Remarks. Here, again, we see the mysteries of the nervous system. In one case there is disorganization of one column of the spinal marrow, and yet no paralysis follows; in another, there is total paralysis, and the spinal marrow remains perfectly sound. A question arises, was the patch observed in the tuber annulare the cause of all the symptoms? M. Velpeau thinks not, and, indeed, it would be difficult to support such an opinion. The small quantity of fluid in the ventricles cannot be considered of much importance. The continuance of motion and sensibility in the thumb and fingers, whilst the arm was totally paralytic, is curious, and not easily explicable. M. Ollivier relates a case of a woman who was quite paralytic, with the exception of a zone, of some inches extent, in the thoracic region. The same author mentions an instance, at the Salpêtrière, where a woman lost the sensibility of the whole skin, except just a small patch on the right haunch. M. Rostan, at the above-mentioned hospital, pointed out a case to his pupils, in which only a small space, an inch or two in diameter, preserved its sensibility, whilst the remainder of the limb was quite paralyzed.

From these, and, indeed, numerous other facts, it is clear that the extremity of a nerve may preserve its functions, although the parts intervening between that and the origin may be totally paralyzed. It appears, too, looking at these cases, that the loss of function in the nerves

may be complete, whilst there is little or no derangement of structure; and, on the other hand, as in the first case, that there may be structural disease without functional disturbance.

32. DISEASE OF THE HEART.*

We shall have occasion to make a remark or two on this case, after we have laid a brief account of it before our readers.

Case. James Fisher, aged 36 years, was admitted into the Middlesex Hospital on the 5th April, 1826, presenting slight rheumatic symptoms. Aperient medicine was given him, and some colchicum in camphor mixture every six hours. The rheumatic symptoms were soon relieved, but the skin became yellow, and he complained suddenly of pain at the scrobiculus cordis and right hypochondrium, augmented on pressure. These symptoms rapidly increased—the respiration became difficult—and, in short, “the patient evidently laboured under an attack of acute hepatitis.” He was bled, and soon after fell asleep; but died suddenly at ten o’clock the next morning.

Dissection. Skin yellow—liver much enlarged and of a purple colour, exhibiting, when cut into, a firm, granulated texture, from interstitial deposition. “The heart was of unusual size, and weighed two and a half pounds.” The coronary arteries were thicker in their coats than natural, but not ossified. “The right auricle and ventricle were passively dilated, and the tricuspid valve so diseased as to be incapable of duly performing its office—in short, the right auricle and ventricle were as one large and flabby pouch, stuffed with a dark coagulum, and their structure corresponded to the softening of the heart described by Portal.” The left side of the heart presented a striking contrast—its muscular walls being in a state of hypertrophy. “The aortic valves were slightly diseased.” The lungs were adherent to the parietes of the thorax, and presented considerable effusion of serum into their substance. “It is remarkable” says the reporter, “that such extensive disease of the heart should have existed without the occurrence of any symptom during life, indicating its presence.”

It would, indeed, have been remarkable had such been strictly the fact. But no mention is made of any examination, *during life*—nay, there is intrinsic evidence in the case that no examination was made. It is hardly possible that any man having the slightest knowledge of the phenomena presented by a heart in the above condition, and more especially a man of talent like Dr. Macmichael, could have investigated the state of the chest. It may be true that the heart did not call out for the house-surgeon’s assistance; but had ear been given to its own language, it would have spoken in language that could not be misunder-

* Case of enlargement of the heart (*the presence of which was not manifested by the symptoms*) and of acute hepatitis. Dr. Macmichael—Med. and Phys. Journal, August, 1826.

stood. Valvular disease, to any extent, of the heart, is characterized by such distinctive phenomena, that the merest tyro in the profession may ascertain it, if he will give himself the trouble to examine—and, without this trouble, the most talented physician or surgeon will overlook one of the most important pathological conditions of the central organ of the circulation. We shall offer an example that cannot fail to bear forcibly on this point.

At the moment we are now writing, (15th Sept. 1826) there resides in King-street, Westminster, Mr. P. a half-pay Quarter-Master in the army, who served his king and country in many a bloody battle, including, we believe, that of Waterloo. Mr. P. has been very ill for eight or nine months past, and has consulted at least a dozen of physicians and surgeons—no two of whom were agreed as to the nature of his complaint. It was hepatitis—hydrothorax—asthma—stomach disorder—hypochondriasis, and many other diseases. He was accordingly treated by each, in succession, according to the view entertained of the malady, and yet without any material alleviation, but, on the contrary, increase of his sufferings.—A single examination of the chest, by percussion and auscultation, disclosed the existence of organic disease of the heart, with its usual consequences, effusion, &c. &c. To ascertain this, it required very little discrimination in the investigator. Any practitioner could have done the same without difficulty, provided he merely took the trouble to place his ear in contact with the parietes of the chest, in the proper place, and strike it in various directions with his fingers. Here, then, we have physicians of eminence—and pure surgeons of superlative anatomical skill, (which, be it remembered, gives them a kind of intuitive knowledge of all internal diseases) working in the dark for months and months—turning up their noses in scorn at the ridiculed process of auscultation and percussion—and treating their patient with useless, perhaps injurious, remedies. It is very true, we cannot cure this disease of the heart—but we know the *juvantia et ludentia*—we can do some good, and we can avoid *all* harm. Is this no advantage?—We have shewn the case to several medical gentlemen—among others, to Dr. Marshall Hall, Dr. Hewett, and Dr. Macann, who readily recognized the nature of the affection. To Mr. Larive, an intelligent and zealous surgeon, of Westminster, we are indebted for the opportunity of investigating the complaint in the present instance. We need hardly say that the distinctive or diagnostic phenomena in this case were such as are laid down by all writers on auscultation, and which were cognizable without any difficulty. The respiratory function is much inconvenienced, there is effusion in the chest, and the train of anomalous symptoms induced by this dreadful disease in the main organ of the circulation, was well calculated to puzzle the medical attendant, until the real seat of the malady was ascertained by examination of the chest. We hope that this case will prove a stimulus to the study of auscultation, and help to dissipate the prejudices which *INDOLENCE* (we can give it no gentler term) is every day presenting against that study.

XIII.
ANALECTA,
 OR
MINOR PERISCOPE.

—
 "Ore trahit quodcumque potest, atque addit acervo."
 —

1. *Stethoscopic Indications of the Pregnant State.* Among the various useful purposes to which the Stethoscope has been applied since the first publication of the invention, one of the most important is its employment to ascertain the pregnant state. The merit of discovering its utility in this way is due to M. Lejumeau de Kergaradec, the friend and "compatriot" of Laennec, who published a small *brochure* on the subject in 1822.* A few additional particulars and some new observations, respecting the indications it furnishes, are given in the recent edition of Laennec,† from which we extract a succinct account to lay before our readers.

The stethoscope, applied to the abdomen, affords two distinct indications, which may be regarded as the most unequivocal signs of pregnancy we possess. The *first* of these is the *action of the foetal heart*. The *second* is a *simple pulsation accompanied with a rushing noise*, designated as the *noise of the placenta* (*bruit placentaire*) by M. Kergaradec, because its seat is in the placenta, or in that part of the uterus to which the placenta is attached.

(1.) The *Action of the Foetal Heart* is characterised by *double pulsations*, which are always much more rapid than in the adult subject, being generally twice as frequent as the maternal pulse. These pulsations are distinctly audible from the sixth month of pregnancy, and are sometimes heard a little earlier. Their *situation* is mostly extensive, varying with the position of the child, and being often perceptible in a space a foot long, and three or four inches broad. The precise point whence the pulsations arise, may be always ascertained by the intensity of the noise, which increases or diminishes according as we examine nearer or farther from their seat. It is probable that the space over which the foetal heart is perceived will be greater, in proportion as the child is placed closer to its membranes, and, consequently, in proportion as the liquor amnios is small in quantity.

The noise sometimes ceases to be audible for hours or even days together; Laennec thinks this may sometimes depend upon the feeble action of the heart, but more frequently is owing to the child having changed its position; so that no part of its trunk touches the membranes, or because a fold of intestine has intervened between the uterus and abdominal parietes.

The action of the foetal heart is a sign respecting which there can be no uncertainty, nor can it be mistaken for any other; for, although we sometimes hear the heart of the mother, when examining over the epigastrium, sides, or loins, the extreme *difference of frequency*, between the pulsations of the child's heart and those of its parent, prevents the possibility of error in this respect.

* Entitled *Mémoire sur l'Auscultation appliquée à l'Etude de la Grossesse*, par M. Lejumeau de Kergaradec, D. M. P. Paris, 1822. 8vo.

† Tome ii. pp. 457. 466.

The state of the circulation in the foetus is not affected, or, at least, not constantly affected, by agitation in the maternal circulation, and *vice versa*. Once, whilst M. Kergaradec was examining the pulsations of the foetal heart, they were suddenly accelerated so much, that it was impossible to count them: the mother was in a perfectly calm state at the time, and her pulse was not at all quickened. In the course of a few seconds the foetal pulsations resumed their accustomed frequency, which ranged from 120 to 160. It has also happened to Laennec to witness the foetal heart suddenly acquire extraordinary energy, its *noise* becoming almost as great as the healthy adult heart; but not accompanied by *impulsion*, or any notable change in the *rhythme* or the *frequency* of its strokes. The phenomenon lasted only a few seconds, and the mother experienced no kind of emotion.

(2.) With regard to the second phenomenon, *the noise of the placenta*, Laennec remarks that it is "evidently an arterial pulsation perfectly isochronous with the pulse of the mother, and accompanied by a rushing noise," resembling the blast of a pair of bellows. There is no sensation of *shock* or *impulsion* along with this pulsation: it is *heard* only, and it appears to be too deep-seated to be *felt*. The place which it occupies never changes, but it varies in different individuals, and is seldom so large in extent as the space in which the foetal heart is perceptible. It does not commonly surpass three or four square inches, but sometimes extends over a space exceeding the size of the hand. On one occasion, when visiting the Hôpital de la Maternité, M. M. Laennec, Kergaradec, and Lens, found a subject in whom it was perceptible throughout the whole of the right lateral region of the abdomen (*flanc droit*) and the right side of the loins.

The *time* when the pulsations of the placenta commonly begin to be heard, is the fourth month. As soon as the fundus of the uterus has risen above the upper brim of the pelvis, so that it can be brought into contact with the abdominal parietes by the pressure of the extremity of the stethoscope, the noise may be heard very distinctly, and sometimes it is even louder than at the full term of pregnancy. At this period, too, its character is peculiar, and different to what it is afterwards. It seems as if a rushing noise, of a somewhat whistling or sibilant nature, *resounded* in an empty bottle; whilst, at a more advanced period of pregnancy, it is almost invariably dull, very diffuse, and gives no sensation of being limited to the calibre of an artery.

This indication, like the action of the foetal heart, is not continually present; there are some days when it can scarcely be detected; and it often disappears and reappears during the time that we are making our examination.

That the seat of the phenomenon is in that part of the uterus to which the placenta is attached, has been proved by M. Ollivry, a physician residing at Quimper, who, by introducing his hand immediately after the expulsion of the foetus, in four cases, found the situation of the placenta to correspond with the place where the noise was audible previous to delivery. The same person has also pointed out another strongly corroborating fact, *viz.* its disappearance immediately, the moment that the umbilical cord is divided. Laennec does not consider it arises from the placenta itself, but from that branch of the artery by which it is principally supplied. We shall have occasion to examine the facts adduced in support of this opinion in our review of the auscultic indications of the heart.

The noise of the placenta and action of the foetal heart are commonly found on opposite sides of the body: this, however, is not constantly the case; for sometimes both the phenomena are audible on the same side, and in one instance M. M. Laennec and Kergaradec perceived the heart's action

behind that of the placenta, the place at which they were examining being the anterior part of the hypogastric region.

In cases of *twins*, Laennec suggests, that there would be *two hearts*, and, perhaps, also, the pulsations of *two distinct placentas*, perceptible in different places. He has known one instance of this kind detected by the stethoscope previous to delivery. He also conceives that it may assist us in determining the position of the placenta, and of the fetus, and, perhaps, throw some light upon extra-uterine pregnancies.

The study of these phenomena requires much greater attention than the indications of thoracic diseases. The noises being very slight and feeble, it is necessary that the apartment be perfectly still. On account of their intermittent nature, we are sometimes obliged to spend a considerable time in our examinations, and to repeat them several times : and it is particularly requisite to be well acquainted with the character of the indications themselves, so as to distinguish them from any others that may be present ; particularly from the action of the mother's heart ;—from a dull noise, like the passage of air through thickish fluid, which the peristaltic action of the intestines causes ; and, also, from the noise occasioned by the contraction of the observer's own muscles, in consequence of the pressure he is obliged to use in applying the cylinder, in order to keep the uterus and the parietes of the abdomen in apposition.

Remarks. The advantages of these indications over the usual methods of ascertaining the pregnant state must be too obvious to every one to require demonstration. As they depend upon the presence of a fetus and a placenta, when they have once been heard, no doubt can exist upon the subject. The only material disadvantage attending them, that we perceive, is, that the inverse of this proposition does not hold good, on account of the phenomena not being always present or discoverable ; so that their non-existence is not equally conclusive of there being no fetus, as their presence is of its existence. Judging, however, from our own investigations, we apprehend that an attentive observer will rarely have to repeat his examinations many times, without finding one or other of them present, in subjects really pregnant ; and, therefore, we conceive that he would be warranted in regarding the reverse as extremely probable, if he had repeatedly obtained negative results only.

The objections likely to be urged against the adoption of this method that occur to us, are, the indecency of exposing the female abdomen, the difficulty of acquiring a competent knowledge of the phenomena, and the liability of mistaking them. With respect to the first of these it is only necessary to observe, that so long as women can be induced, for the sake of alleviating suffering, or by other reasons, to submit to the examination *per vaginam* usually resorted to, no objection can apply against an examination, so infinitely less repugnant to the feelings, as that by the stethoscope. The difficulty of acquiring the use of the stethoscope, were it not frequently urged, would scarcely merit attention. Every thing has its difficulties, and auscultation has its full proportion : but they are not insurmountable to those who wish to learn, and are willing to bestow sufficient time and attention upon the study. To obtain practical skill in applying the stethoscope is not so difficult an acquisition as to play a musical instrument ; and its sounds are much more distinguishable from each other than those of music. Attention, patience, and perseverance, are the three most important qualifications in the candidate for stethoscopic celebrity. The assertion which some individuals have put forth, that in their examinations they have not been able to discover any indications, may be answered by informing

them, that others have detected them, and found them of great practical utility. Whether their want of success arose from defects in the manufacture of the instrument they employed, neglect of the necessary precautions, an imperfect manner of applying it, want of attention, or personal defects in the auscultative organ, is for them to determine. The student will be in little danger of mistaking the auscultic phenomena of pregnancy, if the characteristic distinctions above-mentioned are carefully attended to. We think Laennec has rather over-rated the difficulties attending the examination of these indications than otherwise.

We learn from Mr. Jowett, of Nottingham, whose stethoscopic researches we have several times had occasion to refer to in the pages of this Journal, that he has observed the motions of the fetus to be much more perceptible through the medium of the stethoscope than by the hand alone. The following notice respecting the respiration of the new-born infant has been communicated from the same quarter.

2. *On the Establishment of the Respiration in the New-born Child.** In a paper inserted in the *Mémoires de l'Académie des Sciences*, for 1700, Portal advanced an opinion that the right lung, in the new-born infant, respired before the left. He also adduced some facts to shew that the inflation of the latter does not take place until some time after birth.†

In Paris and Fonblanque's Medical Jurisprudence these opinions of Portal's are regarded as established facts; and further, we find a statement that a physician to a foundling hospital on the continent, who had been daily accustomed to examine the bodies of the infants which died soon after birth, had generally found only one or two square inches of pulmonary structure, crepitous or permeable to air: from which fact it is inferred that the complete inflation of the lungs does not take place immediately after birth; but that the respiration is established in a gradual manner.

Soon after I had commenced the use of the stethoscope, it occurred to me that the correctness or incorrectness of these facts might be satisfactorily determined by examining the respiration immediately after birth by means of the cylinder. I accordingly made the experiment, and the result of repeated examinations has uniformly been, that *vesicular respiration* (or the respiratory murmur occasioned by entrance of air into, and its expulsion from, the air-cells) is audible throughout both the lungs, as soon as the child has made its first inspiratory efforts.

This experiment proves that the function of respiration is completely established immediately after birth; and therefore controverts Portal's ingenious hypotheses, and the opinions drawn from the appearances the lungs present after death.

I am not disposed to question the correctness of the statement, that there is seldom more than a small part of the lungs found to be crepitous or pervious to air, as it accords with my own observations in most of the opportunities I have had of making such investigations. But it appears to me, that, in the new-born infant, as in the adult, a considerable extent of pulmonary structure that has once been inflated in the act of respiration, may again be rendered impervious to air, by disease or by changes which

* Mr. Jowett, in a letter to the Editor.

† The paper in question is reprinted in Portal's Collection, entitled, "*Mémoires sur la Nature et le Traitement de plusieurs Maladies*, Tome I^{re} pp. 29-43. (Paris, 1808, 8vo.)

take place in the dying moments: and, for want of attending to these circumstances, I think an error has been committed, in regarding the non-crepitous portions of lungs (that have evidently respired) as not having been inflated. We frequently observe inflammatory engorgement, hepatization, tuberculous infiltration, oedema, sanguineous engorgement caused by obstruction in the circulation, &c. rendering a great portion of the lungs so dense as to sink in water; and some reasons incline me to regard the last of these states as a common cause of the appearances observed in new born children.

3. Important Toxicological Experiments.* The word antidote was formerly employed to designate the substances supposed to possess the property of counteracting in the animal economy the deleterious effects of certain poisons; but, of late years, toxicologists not finding any of these precious medicines stand the test of experiment, have restrained the acceptance of the word, and applied it only to such chemical agents as are capable of rapidly decomposing or combining with the poison, and of transforming it thus into a new compound, the action of which is no longer dangerous. By substances, possessing these qualities, it is impossible to act upon the poison that has already been absorbed, or to diminish the effects it may already have produced on the digestive canal, &c. but one may hope to render innocuous that portion of the deleterious substance still remaining in the stomach, and to preserve life by putting a stop to the action of the poison before it has continued long enough to produce fatal effects.

It is in this manner that, according to Messrs. Dumas and Milne Edwards, the new method of treatment communicated to the Philomatic Society of Paris, by those gentlemen, on the 19th of August, may be productive of the most beneficial effects in numerous cases of poison. It is founded on the known innocuity of metallic copper, mercury, lead, &c. many of the compounds of which are most deadly poisons; and, on the property which iron possesses of decomposing the salts of these metals, and of reducing their bases. Thus, when a piece of iron is placed in a solution of acetate of copper, for example, the salt is quickly decomposed, and copper in a metallic state deposited on the surface of the iron.

As yet the efficacy of this substance has only been tried by Messrs. Dumas and Milne Edwards in cases of poison by verdigris, carbonate of copper, acetate of copper, sulfate of copper, and corrosive sublimate, but it is probable that it will be found equally useful in many other cases. All toxicologists agree that 12 or 15 grains of acetate of copper always destroy a dog in the space of a few hours, provided the œsophagus be secured so as to prevent the poison from being rejected. In the experiments of Messrs. Dumas and Milne Edwards, from 15 to 50 grains of that compound were administered in the same manner, and about an ounce of iron filings injected into the stomach before or immediately after the symptoms denoting the deleterious action of the poison had begun. The œsophagus was then tied as in the former cases, but the animals instead of expiring in the space of 3 or 4 hours were, in general, by that time, pretty well recovered from the effects of the poison, and survived 5, 6, 8 days or longer; so that their death was evidently occasioned only by the ligature of the œsophagus. In one experiment the ligature was taken off the day after the poison had been given,

* On the use of iron as an antidote for most of the poisons belonging to the class of metallic salts. By Dr. H. Milne Edwards and Mr. J. Dumas Professors of Chemistry.

and the wound closing sufficiently to permit deglutition, the animal recovered perfectly, and 16 days after was made use of for another experiment. After the administration of verdigris, carbonate, and sulfate of copper, the use of iron filings was equally successful; but, with the last of these salts, it was found that the addition of a small quantity of vinegar rendered the action of the antidote much more certain. The same substance administered in the way we have just mentioned, equally hindered corrosive sublimate given at the dose of 12, 15, or 18 grains, from producing death, as is constantly the case when given alone.

The experiments of Messrs. Milne Edwards, and Dumas, not being as yet published, we have not been able to lay before our readers all the details necessary to enable them to judge of the practical use of this new method of treatment in cases which unfortunately so often baffle the skill of the physician; but the importance of the subject induced us to insert the above communication, and as soon as it is in our power, we will return to the subject and examine it with all the attention it deserves.

4. *Curious Neuralgic Affection.* In the *Journal Général* for April, there is a singular case of nervous affection detailed by M. Hellis, of Rouen, which we shall present in an abridged form to our readers.

A young man, æt. 15, who had been for nine years employed in a stable, applied, in 1822, to M. Hellis for advice. His complaint had commenced some years before with a weary pain near the last dorsal vertebra, which soon spread to the epigastrium, attended with hiccup. This continued for about two years, when this nervous sensation did not confine itself to the back and epigastrium, but shot through the chest, belly, legs, and down to the toes. It particularly affected the upper extremities, passing in the course of the nerves to the tips of the fingers. What is important is, that, on closing the hand, the hiccup and this sensation would cease, but on extending a single finger it would reappear, and, quick as lightning, traverse the parts mentioned above. The intervals of exemption from the paroxysm were various, sometimes weeks, sometimes months. Our author invited M. M. Vigné, Blanche, and Godefroy, to examine the case. They found the patient apparently of robust constitution, appetite good, sleep sound. At the bottom of the dorsal region they discovered a small depressed cicatrix, of which the young man could give no account. During the attack, they observed the diaphragm strongly and spasmodically contracted, accompanied by a kind of convulsive sob or hiccup. They, likewise, satisfied themselves of the passage of the neuralgia from the back to the epigastrium, chest, and extremities, and of its instant cessation on flexion of the leg and hand. The affection resisted all the remedies employed, and the patient quitted the country, in order to study for the Church at Rouen. Here, however, the seclusion, restraint, and fear of being incapacitated for his profession, aggravated the complaint, and brought on fits of melancholy. Under these circumstances he was sent back into the country, and then, after a year's suffering, he gradually recovered, his health improved, and the neuralgia disappeared.

5. *Experiments on Pulmonary Exhalation.** The great rapidity with which aeriform and certain volatile substances, when introduced into the veins of a living animal, are expelled by pulmonary exhalation, is a fact fully

* By Messrs. Breschet and H. Milne Edwards, M.D's.—(*Private Correspondence.*)

established by daily observations and by the researches of some French physiologists. In the paper read by Dr. Milne Edwards at the Academy of Medicine of Paris, the 26th of July, the authors relate the experiments they performed, in order to ascertain whether the suction which accompanies each dilatation of the thorax is not the principal cause of this exhalation being so much more rapid in the lungs, than in the other parts of the body; on the same principle as we find, by the interesting researches of Dr. Barry, that absorption is most materially influenced by pressure.

In one experiment, Messrs. Brechet and Milne Edwards injected some camphor, dissolved in alcohol, into the abdomen of a dog, and, four minutes afterwards, found the breath of the animal strongly impregnated with both these substances. They next repeated the same experiment, but with this difference, they introduced a tube into the trachea, laid open the thoracic cavity, and kept up respiration by means of a bellows. The mechanism which makes the thoracic cavity resemble a suction-pump, was then destroyed; and, although the artificial respiration was kept up during an hour, there was no smell of camphor or of alcohol in the air expired from the lungs; at the same time, however, a cupping-glass being applied to the exterior surface of the muscles of the abdomen, the smell of camphor soon became perceptible in that part. In a third experiment, essential oil of turpentine was thrown into the arteries of a dead animal, and, on opening the thorax, the abdomen, &c. the exudation of that substance was found to have taken place in all these parts. By injecting a small quantity of essence of turpentine into the femoral vein of a dog, the thorax of which had been previously laid open as in experiment No. 2, and the respiration carried on in the same manner, the exhalation of turpentine took place equally in the abdominal and pulmonary cavities. But when the same operation was performed on a dog of which the thoracic pump was left entire, the essence escaped with much greater rapidity by the pulmonary exhalation, and no trace of it could be detected on the surface of the peritoneum.

From these experiments, and from some others of the same tendency the authors draw the following conclusions.

1. Those substances which do not pass easily through animal tissues by imbibition, after having been introduced into the circulating medium are no longer exhaled by the lungs as soon as the action of the thoracic pump is destroyed; whereas, those same substances would be soon completely expelled by that means if the suction produced by the dilatation of the thoracic cavity was allowed to continue as usual.

2. That when substances which pass through animal tissues with great facility, (as is the case with essence of turpentine) are mixed with the blood they are equally exhaled in all the parts of the body abundantly supplied with blood-vessels, provided the thoracic pump be destroyed; but that when, as in the usual state, the suction produced by the action of that organ is uninterrupted, the exhalation takes place only in the parts subject to the influence of that power.

3. That it is, consequently, the mechanical action above alluded to, which occasions the rapid exhalation by the pulmonary surface of water, alcohol, camphor, essence of turpentine, and Leven's gases introduced into the circulating medium.

In a subsequent paper, Messrs. Brechet and Milne Edwards intend examining the influence of that action on the other phenomena of respiration.

6. *Transfusion.* Mr. Brigham, of Manchester, has added another case to those already published, of transfusion of blood in uterine hæmorrhage.

The patient was a woman 40 years of age, who was easily delivered of her eighth child, the placenta being expelled in a quarter of an hour afterwards. In the course of three hours, the patient complained of a violent pain in her back, and appeared slightly convulsed. This was followed by a sudden gush of blood from the uterus, which must have continued more or less for some hours. Four hours after the accident Mr. B. visited the patient, and found her senseless, pale and exhausted, with cold extremities and surface, the pulse scarcely perceptible. The flooding had now ceased. Light nourishment, and stimulants were administered; but without producing the least sign of benefit, or of returning animation. In another hour she appeared to be sinking. Her breathing was short and hurried—face deadly pale—pulse quite imperceptible at the wrist—and, in short, “life appeared to be ebbing fast away.” Transfusion was now the only resource, and it was performed in the presence of several medical gentlemen of Manchester. Two ounces were first injected by means of a common syringe, without any sensible change in the pulse or otherwise. But after the third charge had been injected a few minutes, the pulse was bettered (or we should say became perceptible) and the countenance appeared more animated. The transfusion was continued, with intervals of ten or twenty minutes, until ten or twelve ounces of blood were injected. A decided improvement was now evident, and the patient was able to speak, which she had not done for six hours before.

A curious phenomenon is here recorded by Mr. Brigham, which is worthy of notice. Immediately after each injection of blood, the pulse, feeble as it was, appeared to falter still more, and to become more oppressed; but after a lapse of five or ten minutes, it recovered its beat, became more firm, and evidently demonstrated the effect of the transfusion. On visiting the patient next morning, she was found in a composed sleep, which had lasted four hours. She gradually recovered completely.

In this, as in most of the other cases, there is an opportunity for the sceptics to aver that life would, in all probability, have been preserved had the transfusion never been used. It is impossible to argue against such objections—objections which might be urged against every remedial means, where recovery is the result.—*Ed. Journal of Med. Science.*

Still more recently the operation of transfusion was performed on a female, a patient of Mr. Jewel's at the Middlesex Infirmary, but without success. The woman was of delicate constitution, and exhausted by a severe uterine hæmorrhage. After various means had been employed to recruit this patient, transfusion was had recourse to. Mr. Boyle opened the right external jugular vein, no vein being discoverable in the arm, and about four ounces of blood were thus introduced. No good effect was apparent, and the patient soon expired. As it was suspected that, by possibility, some air might have got into the jugular vein, notwithstanding the care that was taken to prevent it, an examination was made after death, and a very small quantity of air was found in the right cavities of the heart. It is not certain whether this small quantity was introduced during the operation, or generated by putrefaction after death. The accident, however, which happened to M. Dupuytren, on opening the external jugular vein of a patient, and the recent experiments of Dr. Barry, render it probable that transfusion through this channel must be a very hazardous operation, and ought to be avoided, if any other vein can be found for the purpose.

7. *Fatal Placental Presentation.* Mr. James, of West-Bromwich, Birmingham, has stated a melancholy case of this kind, in the Repository for

September, 1826. The woman was seven months gone in pregnancy, when a uterine hæmorrhage occurred, after carrying a heavy weight of coals on her head. Mr. James was summoned on the 29th July, 1826, on account of this accident. She was said to have lost three pints of blood. She was not faint—pulse 90, and firm—os uteri admitted the point of the finger, but nothing unusual could be detected. Quietude in the horizontal posture—cold to the labia pudendi—sulphuric acid and opium every four hours. After the third dose, she was seized with a most profuse hæmorrhage. A midwife was brought, who sent for Mr. James, but he did not arrive till many hours after the loss. The woman was apparently then in a dying state. Æther and brandy were exhibited, and a temporary revival followed. Mr. J. found a large knuckle of placenta in the vagina, the os uteri almost fully dilated. He discovered the dense expansion of the placenta implanted directly upon the os uteri in its thickest part. He passed his hand up on one side, and attempted to thrust his finger through the weaker edge, but failed. He then perforated the centre of the mass with his fingers, seized the feet of the child and brought them down into the vagina, giving exit to a pint or more of liq. amnii. A pain occurred then, but did not return. Hæmorrhage supervened. The child's body was extracted, but the head was obliged to be opened, and extracted with a hook. Contraction of the uterus was solicited by the introduction of the hand, keeping pressure on the abdominal aorta, to lessen the distance of the heart's circulation—but all to no purpose—life was gone.

Mr. James suggests the expedient, in profuse uterine hæmorrhages, of placing tourniquets on the limbs, and keeping pressure on the abdominal aorta, until contraction of the uterus takes place. "In this way the heart, brain, and lungs would receive an adequate supply of blood for the sustenance of life." We were not aware that "it is a common practice among midwives to tie ligatures on the limbs, to stay the loss of blood." We did not give them credit for so much philosophy. Many of our readers must recollect that tourniquets used to be applied to the limbs in the cold fit of agues, for the purpose of shortening that disagreeable stage, which it certainly did. We have tried the experiment many times, some twenty years ago. The rationale appears to be, that it shortens the round of the circulation, and keeps the great arteries fuller than they otherwise would be. This expedient is worthy of trial, in such deplorable circumstances.

8. *Imperforate Rectum.* A child, nine days old, was lately brought to Bartholomew's Hospital, the abdomen so distended that the convolutions of the intestines could be distinctly seen. On examination, Mr. Earle found that the anus was perfectly formed, but that, at an inch and a half from the external opening, a septum went across, and thus prevented all egress of fæces. A trochar, of large size, was pushed through, and gave vent to a large discharge of flatus and fæculent matters, after which the cannula of the trocar was left in for two days, and then replaced by an elastic gum tube. The passage was subsequently enlarged by a bougie, and the child perfectly recovered.

9. *Fatal Dissection Wound.* Another medical man has lately fallen a victim to this terrible accident. M. Gerard, Jun. Professor at the Veterinary School of Alfort, pricked the little finger of his left hand, while dissecting the body of a man who died the day before of putrid fever. A small vesicle, encircled by an inflammatory areola, was first perceived. This was opened with the point of a lancet, and some sero-sanguineous fluid discharged. Presently the whole arm swelled. M. Breschet was called in, and found

the patient in a state of great inquietude and suffering. He had had leeches applied, and was bled from the arm, which produced protracted delirium. The finger was swelled, œdematous, and emphysematous. The arm presented a tumefied and marbled appearance. Caustic was applied, and afterwards emollient fomentations and poultices. This was followed by considerable mitigation of the symptoms, but the patient was haunted with fears as to the issue of the case, and the inflammatory symptoms rose again. Leeches, fomentations, and anodynes were reiterated. The morbid sensibility of the arm was such that the slightest pressure occasioned the most poignant distress. Pain was also complained of in the epigastrium and abdomen. The tongue was covered with a white crust, the edges being red—skin hot and moist—pulse frequent—cerebral excitement great, but without delirium—strong conviction in the patient's mind that the disease would prove fatal. Recamier, Dupuytren, and several eminent men now joined in consultation. Leeches were clustered on the abdomen—and much with other sedatives were administered internally. At this time a most exquisite pain was felt in the left knee and shia bone, though no redness or swelling could be perceived. Soon, however, some obscure fluctuation was felt, and an incision being made through the fascia of the leg, a small quantity of puriform fluid escaped. Between the twelfth and fourteenth days a still more alarming train of phenomena was developed. Severe pain in the head—intolerance of light—great irritability—and sub-delirium—frequency and irregularity of the pulse—sleeplessness—subsultus tendinum, &c. set in, and these symptoms progressively increased, with a dysenteric state of the bowels. Warm baths calmed a little the violence of these phenomena; but they were always exasperated by a subsequent re-action. The respiration now became embarrassed, and the patient sunk, after a violent and agonizing struggle of 48 hours.

Dissection. Fluid between the arachnoid and pia mater—brain and cerebellum firmer than natural—an ounce of yellow serum in the ventricles—but no extraordinary injection of the cerebral vessels. In the chest, about eight ounces of dark-coloured fluid were found on each side, which appeared to be pure blood, or blood mixed with a small quantity of serum. The lungs were remarkably pale, but otherwise not diseased. No other lesion in the thorax. In the abdomen, the peritoneum was pale and healthy. The mucous membrane of the stomach was rather injected in some places, and softened. The duodenum presented throughout its whole extent a sub-mucous emphysema, its lining membrane being raised in small phlyctenæ. The mucous tissue of the jejunum was also elevated by a gaseous fluid—that of the ileum was red with capillary injection, especially about the ileo-cæcal valve. There was no other particular appearance, except in the blood, which was in a completely liquid state throughout the body.

We think it will hardly be doubted that a virus was introduced into the system in this case, though certainly the state of mental despondency which M. Gerard evinced, and which is but too often evinced by medical men labouring under severe disease, gave a fearful activity to the poison received during dissection. It is very doubtful if the caustic and the innumerable leechings did much good in the case just detailed. But on this point our readers will judge for themselves.

The same author, M. Gendrin, has made some experiments on animals with blood and other fluids taken from diseased subjects, of which it may not be uninteresting to take some notice in this place.

Exp. 1. An ounce of blood, taken from the vein of a man who was ill

and died of a putrid fever, was injected into the cellular membrane of the thigh of a cat. For an hour and a half there appeared to be no inconvenience produced. In 20 minutes more, trembling of the under lip and nausea took place—at the end of two hours vomiting, first of yellow bile and afterwards of green. The animal lay down and uttered some plaintive cries—the breathing was embarrassed. At the end of six hours there were unequivocal symptoms of fever—and in fifty minutes more the animal expired, with slight convulsions, and in a state of extreme prostration. The gastro-intestinal mucous membrane was healthy, but that of the trachea and bronchia was red—lungs contained black blood—and the same was found in the arteries. Two ounces of black blood were effused in the cavities of the pleura. No morbid appearance in the brain or spinal marrow.

Exp. 2. Some blood which had issued from the nose of the same fever patient was injected into the crural vein of a small dog, and, four hours afterwards, the animal vomited green bile—was depressed, with quick pulse, &c. In seven hours he died. On dissection, the blood was found to be black and fluid in all the vessels, with a red state of the bronchial mucous membrane.

These experiments are confirmatory of those made some years ago by M. Gaspard, where the injection of pus and other secretions into the cellular membrane and vessels of animals caused their death. They also support the idea that, in certain fevers, some poisonous miasma is received into the circulation, and gives rise to the terrible phenomena that result. What but an aerial poison could produce the destructive fevers of Batavia and other deadly situations that have been the graves of so many Europeans?—*Rev. Med. Avril, 1826.*

10. *Infanticide.** Information having been given to the county procurator-fiscal that one Margaret Patterson had been delivered of a natural child, which, from certain marks and other circumstances, was supposed to have suffered violence causing its death, Dr. Grace and Dr. Scott were ordered to examine and report upon the case. They were informed that the female had been delivered, without assistance, the preceding day—and that the child was found dead by the neighbours, under suspicious circumstances. The child appeared full grown, and free from putrescency, weighing six pounds, two ounces, and measuring 19 inches in length. The umbilical cord appeared to have been torn, and was untied, except by a few threads loosely thrown round it. The face was slightly livid, eyes turgid, slight puffiness above the ears, but no injury of the integuments, permanent deep indentation encircling the neck, bordered by a stripe of rose-red discoloration. There were similar marks on each side of the thyroid cartilage, with abrasion of the cuticle. Under these discoloured marks, there was injection of the capillaries, especially over the cartilages of the trachea, which were compressed and injured. The chest was round and prominent—lungs fully dilated—and swam in water—large blood-vessels at their roots, filled with dark-coloured blood—ductus arteriosus empty—venae cavae and right auricle contained blood—viscera of the abdomen healthy—urinary and gall-bladders empty—large coagula of blood under the integuments of the head covering the parietal bones—pericranium vascular, and separated from the bones—parietal bones fractured, one into five, the other into three pieces—surface of the brain vascular, and covered with coagulated blood—coagulated blood

* Dr. Scott and Dr. Christison. *Ed. Journal*, July, 1826.

never cried or was heard these assertions, yet, sure of all this medical abandoned the greater c minor offence—the conc punishment. If the grav was intended to be set nine cases out of ten, the are strongly disposed to faultle wild animal—the mother will sacrifice the therefore, we see so deep strong cause for believing seat—and that the wretel side of her feelings and have recoiled with horror This doctrine may be stig false—but we hope it w telligent jury will lean—

11. *Extra-uterine Con*
die's Journal for January
are as follow.

Mad. B. ret. 34, of a go
in 1823, of dysury, pain in
the vagina. Under the u
symptoms disappeared. I
from fits of nausea, which
and the breasts swelled, I
nant. The menstrual dis
the course of a few hours
discharge of blood in

serious in the complaint, and prescribed only absolute rest. The symptoms began to disappear, but Mad. B. taking active exercise again, they returned accompanied with dry cough, and heat of skin, particularly at nights. On the 5th August, after using some exertion, an abundant discharge of blood from the vagina, took place, with violent vomitings; face pallid, limbs stiff; pulse small and frequent; and severe darting pains in the right hypochondrium, relieved somewhat by the sitting posture. Opiate draughts, diluents, fomentations to the abdomen and legs, and frictions were employed during the night, and by the next morning all the symptoms were much mitigated. In the course of a few days the lady recovered her health, soon again to lose it. An examination was now allowed, and Dr. D. found the neck of the uterus elongated and descending to within an inch of the orifice of the vagina, the uterine orifice round, its edges granulated and hard; the uterus developed as in the second month of pregnancy, the belly was exquisitely sensible. A physician, who was consulted, gave his opinion that it was disease of the uterus and ovaries; M. Dupuytren was applied to, but gave no decided diagnosis. The poor lady's health now visibly declined. Another attack of her former symptoms came on; on examination there was found retroversio uteri; some feeble contractions of the organ took place; the pain, weakness, smallness of pulse, coldness of the extremities increased, and she died in agony on the 12th September.

Dissection. Abdomen. A semicircular incision being made from one hypochondrium to the other, about three pints of mingled blood and serum issued. From the midst of the convolutions of the intestines, a male fœtus escaped, about the size of one three months and a half old; it was discoloured, and, in many places, the epidermis was detached. In the pelvis, between the cæcum and rectum, to which it adhered, appeared the fetal cyst, dark and of the size of the fist (poing.) In the cyst, to the left, was an opening two inches in length, and it adhered to the omentum, which passed over it and formed a kind of band, keeping it in its place. This cyst was found to arise from the right ovary; its interior was filled with clots of blood, and its lining membrane like that of the amnion. The mucous coat of the uterus was injected, and its internal surface covered by a gelatinous membrane. The peritoneum was reddened. Such are the principal facts of this case.

12. *Rheumatism of the Heart cured by Acupuncture.** Mademoiselle H., æt. 18, of a good constitution and nervous temperament, after having lived for several years in a damp house, was attacked with rheumatism of the legs and arms. On her leaving the house this was relieved, but she now began to be seized frequently with acute pain in the heart, aggravated by any sudden emotion, by cold and damp weather, and by changes of temperature; this pain was accompanied by palpitations, and often followed by a kind of delirious loquacity; its duration was from a quarter of an hour to three hours, and more. To these attacks, with the exception of the pain and palpitations, the young lady had been subject some years previously, after the loss of her mother. Baths, bleedings, leeches were employed in vain.

On applying to M. Peyron, the narrator of the case, it was found by auscultation that the pulsations of the heart were unusually violent, and distinctly audible at the upper and back part of the left side of the chest, and even of the right; the impulsion of the ventricle was in duration to that of the auricles, as one to five eighths; pulse quick and intermitting.

* M. Peyron. *Revue Medicale*, May, 1826.

It was determined to try acupuncture. A needle, 13 lines in length, was introduced, without, however, touching the heart. This was followed by one of those semi-delirious paroxysms to which the patient was subject. A second needle, 15 lines in length, was used with a similar effect. A needle 18 lines long, was now directed from the upper border of the cartilage of the sixth rib, through the pericardium, until its point entered the heart. This was followed by alleviation of the pain in that organ, nor has it since returned.

13. *Extirpation of an Ovarium.** A back settlement of America—Kentucky, has beaten the mother country, nay, Europe itself, with all the boasted surgeons thereof, in the fearful and formidable operation of gastrotomy with extraction of diseased ovaria. In the second volume of this series, page 216, we adverted to the cases of Dr. Macdowel, of Kentucky, published by Mr. Lizars of Edinburgh, and expressed ourselves as sceptical respecting their authenticity. Dr. Coates, however, has now given us much more cause for wonder at the success of Dr. Macdowel; for it appears that, out of five cases operated on in Kentucky by Dr. M. four recovered after the extraction, and only one died. There were circumstances in the narratives of some of the first three cases, that raised misgivings in our minds, for which uncharitableness we ask pardon of God, and of Dr. Macdowel of Danville. The two additional cases now republished (for it appears that the cases were published, though in a very unsatisfactory form, in the American Eclectic Repertory) are equally wonderful as those with which our readers are already acquainted. We shall only glance at one of these.

In April, 1817, Dr. Macdowell removed from a negro woman a tumour of the ovary, weighing five pounds. The ligature, which was passed round the fallopian tube, slipped, and the patient lost a large quantity of blood. Ligatures were then applied to several of the arteries individually; but this also failed, as some of them cut through. "*With much difficulty a large ligature was now put round the whole stump of the tube, and secured by stitching it in and out of the tube at several places.*" This effected the purpose, and the patient recovered of the operation. This was the fourth case. The fifth was unsuccessful.

When we come to reflect that all of the women operated on in Kentucky, except one, were *negresses*, and that these people will bear cutting with nearly, if not quite as much impunity as dogs or rabbits, our wonder is rather lessened, and so is our hope of rivalling Dr. Macdowell on this side of the Atlantic.

In July, 1821, we are informed that Dr. Nathan Smith, of Yale College, extirpated an ovarium from a lady of Vermont. Through a small incision of three inches in extent, the tumour was first tapped, and eight pints of a dark rosy fluid were removed. The sac was then drawn out, and separated with the knife from the omentum to which it adhered. Two arteries in the omentum were tied with *leather ligatures*. The ovarian ligament was then divided, two arteries secured as before, and the ligament returned. "The sac was supposed to weigh between two and four ounces." No unfavourable symptom occurred, and in three weeks the lady was able to sit up and walk. This case is related in the 18th volume of the Edinburgh Medical and Surgical Journal.

* Dr. A. G. Smith. North American Medical and Surgical Journal, No. 1, January 1826.

The still more recent case is by Dr. A. G. Smith, and Danville, Kentucky, is still the scene of operations.

The patient was a negress, who had a tumour in her abdomen of two years standing. Her general health was good, and on the 24th May, 1833, Dr. Smith made an incision from the umbilicus to within an inch of the pubes. The peritoneum was then carefully incised, when the tumour presented itself. A large opening was made into it with the scalpel, and several pints of fluid evacuated, when it so far collapsed that the operator was able, though not without difficulty, to get it out of the abdomen. The attachment to the uterus was found to be not much larger than the broad ligament usually is. The tumour appeared to be an enlargement of the whole ovary of that side. The attachment was surrounded with a strong ligature of white silk—the tumour separated—and the wound was secured by the interrupted suture:—twenty-five drops of laudanum were then administered, and the patient put to bed. As sickness came on, 50 drops more were administered, and shortly afterwards 200 drops were given per anum. All this did not allay the gastric irritability, and, therefore, five grains of opium were introduced as a suppository. We need not pursue the diurnal details. Suffice it, that the negress recovered. The tumour was found to be of a scirrhus nature, and to contain a considerable quantity of body matter.

Dr. Coates, one of the editors of the Journal from which we have taken this account, characterises "this operation as peculiarly American, seldom, if ever, having been performed with success, in Europe." Dr. Coates has quoted in italics our scepticism respecting the success of this operation, as stated in the second volume of this series, page 408. If the operations in Kentucky be authentic records, we have been wrong in our prognostication most assuredly, and happy we are to find ourselves in error on such a point. We did not know that the cases had been published in the Eclectic Repertory, and, from an observation of Dr. Coates himself, it appears that the mode in which they are narrated had "*drawn forth comment*," in the Repertory. It was this mode of narration which excited our scepticism, and we must confess it is not yet removed. If we were wrong in our prognostication, we were so in good company—that of Diemberbroeck and Sabatier, who believed the operation to be altogether impracticable. Dr. Coates does not consider the case of Mr. Lisars as one of unequivocal success. We think it is. For although one ovary was left behind in a state of disease, the other was successfully removed, having carefully examined the woman ourselves in London afterwards.

14. *Acupuncture.* In the last number of the Medical Repository, Dr Ewing has related a case which exemplifies, in a very striking manner, the surprising and unaccountable effects of this curious operation—or, of the influence of mind over matter, for we scarcely know to which of these causes to attribute the almost miraculous result.

A young lady had been afflicted, at intervals, for eighteen months, with a severely painful affection of the nerves of the right cheek, immediately below the orbit, and extending to the angle of the lower jaw. On the 14th January, 1826, she was attacked more violently than usual, and all remedies failed. Next day, acupuncture was proposed, and eagerly submitted to by the young lady. Three needles were inserted, about an inch from each other—two of them parallel with the inferior edge of the orbit and half an inch below it—the third below, and equi-distant from the others. The first two were introduced to the depth of three quarters of an inch,

slowly and with a rotatory motion—the third, to full an inch in depth. The second needle was scarcely introduced, when the patient exclaimed that the pain had entirely left her. When the third was introduced, such was the relief, after previous exhaustion, that she reclined her head on a pillow, and fell fast asleep. There was no return of the pain. Several weeks had passed away, when the report was made, and no attack had been experienced.

15. *Congenital Blindness cured at an advanced Age.** When this lady came under Mr. Wardrop's care, she was in her 46th year. The right eyeball was collapsed, the left retaining its natural globular form. The cornea of this eye was transparent, except at one point where there was a linear opacity, probably the cicatrix of a wound made by a Parisian oculist, in an unsuccessful attempt to restore vision when she was six months old. The anterior chamber of the eye was of its natural capacity, but no vestige of a pupil was perceptible, some streaks of yellow lymph being deposited in an irregular manner over the central part of the iris. There was reason to believe that the retina was sound; for though she could not perceive objects, or form any idea of colours, yet she was able to distinguish between a very light and a very dark room, and between a gloomy day and sunshine. Under this impression, Mr. W. thought the attempt to restore sight by an artificial pupil was worthy of a trial. On the 29th January, he introduced a small needle through the cornea, and passed it through the centre of the iris, but could not destroy the adhesions which had shut up the pupillar opening. After this, she could perceive a little more light, but not forms or colours. On the 8th February, a second operation was performed, by passing a sharp-edged needle through the sclerotica, bringing its point through the iris into the anterior chamber, repassing it into the posterior chamber at a small distance, and then dividing the portion of iris thus included between the two perforations of the needle. A slight inflammation followed—the light became offensive—but it was evident the sight was still very imperfect. On the 17th February, a third operation was performed, which consisted in still further enlarging the opening in the iris, and in removing some opaque matter by a needle introduced through the sclerotica. In returning home from Mr. Wardrop's house, with the eye covered with a loose piece of silk, the first thing she noticed was a hackney-coach passing, when she exclaimed—"What is that large thing that has passed by us?" In the course of the evening she requested her brother to shew her his watch, which she narrowly surveyed close to her eye. She remarked, there was a dark and a bright side. She pointed to the hour of 12 and smiled. When asked if she saw any thing more on the dial-plate, she replied "yes," and pointed to the hour of 6, and to the hands of the watch. She then looked at the chain and seals, remarking that one of the seals was bright, which was the case, being of crystal. Next day she refused to look at the watch, observing that she was confused by the visible world thus for the first time opened to her. On the third day, she observed the doors on the opposite side of the street, but mistook their colour. This day she saw the nose on her brother's face, (dimensions and colour not stated,) and on the 6th day saw still better, but was bewildered, from not being able to combine the sense of sight and touch, feeling dis-

* Case of a lady born blind, who received sight at an advanced age by the formation of an artificial pupil. By James Wardrop, Esq. F.R.S. Ed. &c. From the Philosophical Transactions.

appointed in not having the power of distinguishing at once by the eye those objects which she could so easily distinguish from one another by feeling them. In short, she had almost every thing to learn—for although she could distinguish one object from another, she knew not, by the newly-acquired sense, what any object was—nor could she form any idea of its distance from her. She was, however, highly delighted with restored vision, and we almost envy her the pleasure which she must feel on the sight of so many novelties, at an age when novelties begin to be very scarce articles with most human beings—even of her sex!

There is no other case on record where the sense of vision was restored at so late a period of life—and it is not a little remarkable, that the optic nerve should remain fit to receive the impressions of external objects for the long space of 46 years, during which, it was totally excluded from the performance of its function. The operation is very creditable to Mr. Wardrop, and we wish him long life and many opportunities of enlightening, not only the visual orbs of his fellow creatures, but the dark paths of medical science. We also wish him plenty of "*pupils*," natural and artificial, to operate on in Bartholomew Close—which some folks think is rather too close to Bartholomew.

16. *Remarkable Disease of the Heart** 1. The first case of the curious disease in question, was observed by Dr. Young, at St. George's Hospital, in the person of a young woman who had been subject, for ten years, to occasional palpitation of the heart, and sensation of suffocation in the throat, with pain in the left side of the thorax, extending to the back and left shoulder, accompanied by vomiting. Each attack commenced with sense of obstruction at the scrobiculus cordis, rising to the left shoulder, and descending the left arm to the little finger. These paroxysms were at first at long intervals, once in several months, and only of an hour or two hours' duration. Within the last two years, however, they had become more frequent—yet still she was perfectly free from ailment in the intervals.

"Since Christmas last, these attacks have increased in frequency and violence, and she has suffered four weeks, with only one intermission, from the present attack. *Pulse above two hundred*, occasionally too rapid to be counted;† with throbbing of the carotid arteries communicated to the veins,

* Drs. Young—Macleod—Otto.

† We never could count the pulse with any degree of certainty beyond 150 or 160 in the minute—we were, therefore, a little surprised at the foregoing statement of Dr. Young. It is not impossible, however, that a profound knowledge of the mathematical and other exact sciences may confer a power of enumerating the pulses superior to that possessed by the generality of the profession. The following is the opinion of one of the most talented physicians this country has produced—the late Dr. Parr. "The pulse may be counted with some degree of accuracy till it reaches *one hundred and forty* strokes in the minute—perhaps, by strict attention, to one hundred and seventy. Beyond, all is rude conjecture"—*Art. Pulsus, in Med. Dictionary*. But, we may further observe that, had we the power of distinctly counting the pulse to, or beyond 200 in the minute, we do not believe that the heart has the power of distinctly throwing out blood to that amount of pulsations. At least we have never felt a distinct pulse beyond the number we have stated above. It is but fair, however, to say, that Dr. Young may quote WENDT, (*de pulsus mutatione*;) who maintains that he could distinguish 213 pulses in the minute!!

watery fluid. The heart was rather large for an early age. On opening the right ventricle, it resembled coagulated blood; but on dissection was found to consist principally of effusions of various shapes and sizes, and in different states, mostly yellow. Many of these portions adhered to the texture of the heart. Some of them, when cut open, were found to contain a few drops of pus, while others contained the greater part of the lymph, however, was torn by pressure. The lymph was most abundant in the fleshy columns of the tricuspid valve and sinus formed by the reticular valves. In one place the adhesion was such as to doubtful whether or not there was any communication with the left ventricle there were exactly the same. The brain was natural in appearance. The left corpus striatum. The circulation on the left side was obstructed by a firmly organized mass within it.

2. Dr. Macleod informs us that he was shown by Dr. Gordon, of Edinburgh, when two specimens of the heart—one being flat, and applied to the chest—the other globular, and the size of a half-crown piece. The globular one was the other empty.

3. To the above we shall add a case of a patient who was a soldier, who died of disease. On dissection, the size and structure of the left ventricle was found to contain an immen-

17. *Injuries of the Thorax.**—*Case 1.* A man was brought to the Middlesex Hospital in the middle of the night, said to have been run over by a carriage. He complained much of his chest, and his breathing was laborious. On pressure, several of the ribs on the left side seemed to yield—and much crepitus was felt on moving the body. The exact number of fractured ribs could not be ascertained, in consequence of the cellular emphysema, rapidly extending over the body. The breathing becoming more difficult, and the pulse rising, an attempt was made to bleed, but little blood could be extracted, and little relief was obtained. The emphysema rising to a great height, the temporal artery was opened, and a large quantity of blood was abstracted, but without any relief. Mr. Bell was then summoned, and immediately made an incision on the upper edge of one of the fractured ribs, punctured the pleura, and enlarged the opening with a bistoury. A forcible rush of air from the chest was the consequence, the breathing was relieved, and the tumefaction of the face lessened. In a few hours the breathing again became laborious, and relief was obtained by clearing the wound of coagulated blood. This operation was repeated at midnight. *Second day.* Breathing easier—cough troublesome—expectoration glairy, with streaks of blood, but no froth. A bandage was applied lightly round the thorax in the morning, with the view of steadying the ribs. This was, however, soon left off in consequence of the increased difficulty of breathing. Purgas. Salines with antimony, with tinct. camph. comp. every six hours. Venesection as often as the pulse rose. Next morning he was better, but he changed for the worse and died in the evening.

Dissection. Ten ribs on the left side were fractured; three of them projected into the cavity of the chest, in which there was much blood and serum. A laceration was discovered in the lung. Bronchus inflamed—lungs gorged with blood—old pleuritic adhesions.

Remarks. Mr. B. observes that emphysema is caused either by the rib being pressed in upon the lung, or from the lung itself being abraded by the motions of the rib. If the air escapes readily into the cellular texture, there may be little danger, for it is remarkable how rapidly it is absorbed. But if the air be confined, that side of the chest is not only distended, but the pressure on the mediastinum encroaches on the other cavity, whilst the diaphragm is kept down and impeded in its action. That this was the case in the present instance, the rush of air from the cavity when punctured, and the sudden relief to the respiration are sufficient to prove. Had the cellular membrane only been scarified, as is usually done, the patient must have died suffocated. Here the death must be attributed to the inflammation, the necessary consequence of so extensive an injury.

Case 2. M. Harrington, æt. 45, fell on the spikes of a railing, one of which fractured a rib on the right side, and entered the cavity of the chest. On admission into hospital, there was great excitement and anxiety, but no emphysema. V. S. ad $\frac{1}{2}$ xx. the integument closed by adhesive straps, covered by a compress, and the chest bandaged. Calomel and jalap. Active depletion as often as the pulse rose, conducted this case to a speedy and favourable termination. On the sixth day, the opening into the chest was closed, and on the twentieth he left the hospital.

The successful issue of this case must be ascribed to the wound having taken on the adhesive inflammation.

* Mr. Charles Bell and Mr. Shaw. Med. Journ. Sept. 1836.

Case 3. (Mr. Shaw.) W. Tateman, æt. 25, fell, June 10th, on a spike, which penetrated near the inferior margin of the right scapula, passed close to the axillary artery, and fractured the third rib, near its junction with the cartilage. There was no emphysema. The pulse 96, respiration difficult.

V.S. ad 3xviij.—wound dressed with adhesive straps—chest swathed ; saline and ant. tart. ad nauseam, ter die. It is unnecessary to follow up the details of this case, but it may be mentioned, that in a few days he lost above eighty ounces of blood ; the wound was long in healing ; and on the 18th July, he was discharged cured.

In injuries of the chest it is more necessary to bleed *before re-action*, than in any other species of accident, because it is a great object to reduce the volume of blood which is to circulate through the lungs, the functions of which are liable to suffer in more ways than from the inflammation, effusion, extravasation, &c. which succeed re-action. Such cases, therefore, form an exception to the general rule of not bleeding till some degree of re-action takes place in severe accidents. In Mr. Bell's first case, we do not see that a bolder surgery would have offered much prospect of success, on account of the number of ribs broken, and their projection inwards upon the lungs. Any operation that might have removed the projecting points of ribs from their dangerous position, in whatever way effected, would have been a procedure little less formidable than the celebrated operation of Richerand, who sawed away a couple of ribs, and made a large window into the chest, directly over the pericardium !

XIV.

BIBLIOGRAPHICAL RECORD ;

OR,

Works received for Review between the 15th of June and the 15th of September, 1826.



1. The American Medical Recorder, for April, 1826. 8vo.

The following works have been presented by M. Bailliere, of Paris, and No. 3 Bedford-street, Bedford-square, London, viz.

2. Discours sur la Biologie, ou Science de la Vie, &c. 8vo. pp. 72. Paris, 1826.

3. Recherches sur les Cas d'Utérus Double et de Superfétation. Par A. L. CASSAN, &c. &c. 8vo. pp. 84, avec une Planché, Paris, 1826.

4. Nouveaux Elemens de Pathologie Medico-Chirurgicale. Par Mess. ROCHE et SAISON. Tomes 2, 8vo. pp. 666, 711. Paris, 1826.

5. Mémoires de la Société Médicale d'Emulation de Paris. Tome neuvième, avec deux Planches. 8vo. pp. 544. Paris, 1826.

6. Traité Clinique et Experimental des Fievres dites Essentielles. Par J. BOUILLAUD, M.D. &c. 8vo. pp. 552, Paris, 1826.

7. Transactions of the Medico-Chirurgical Society of Edinburgh. In-cluded 1824, Vol. II. with Plates. 8vo. pp. 411. Edinburgh, 1826.

8. An Introductory Lecture delivered in the College of Physicians and Surgeons, at the opening of the Winter Session, on the 1st November, 1825. By DAVID HOSACK, M.D. &c. 8vo. stitched, pp. 61. New York, 1825.

9. The Philadelphia Journal of the Medical and Physical Sciences. No. 5, New Series. Philadelphia, 1826.

10. Observations on the Medical Character. By DAVID HOSACK, M.D. &c. 8vo. stitched, pp. 38. New York, 1826.

11. An Introduction to the Practice of Midwifery. By THOMAS DENMAN, M.D. Licentiate in Midwifery of the College of Physicians in London, &c. From the last London Edition, revised by the Author. With Notes and Emendations by JOHN W. FRANCIS, M.D. &c. 8vo. pp. 684, 16 plates. New York, 1825.

12. A Synopsis of the Diseases of the Eye, and their Treatment: to which are prefixed a Short Anatomical Description, and a Sketch of the Physiology of that Organ. By BENJAMIN TRAVERS, F.R.S. Surgeon to St. Thomas's Hospital. With Notes and Additions by EDWARD DELAFIELD, M.D. &c. First American, from the third London Edition. 8vo. pp. 474, with coloured plates. New York, 1825.

This reprint of Travers on the Eye is very creditable to our Trans-Atlantic brethren. The coloured plates which, we understand, are the first that have been executed in America, are really well finished, and would not shame our British Artists.

13. A Treatise on Diet, with a view to establish, on Practical Grounds, a System of Rules, for the Prevention and Cure of Diseases incident to a Disordered State of the Digestive Functions. By J. A. PARIS, M.D. F.R.S. Fellow of the Royal College of Physicians, &c. 8vo. pp. 307, London, 1826.

14. A System of Anatomical Plates, with descriptive Letter-Press. By JOHN LIZARS, F.R.S.E. Fellow of the Royal College of Surgeons, Corresponding Member of the Medical Society of Emulation of Paris, and Lecturer on Anatomy and Surgery, Edinburgh. Part X.—The Organs of Sense and Viscera. Folio, 8 plates, pp. of letter-press 66. Price 10s. 6d. plain; £1. 1s. coloured.

This number does, we think, full justice to Mr. Lizars' fame, and this is no mean praise. The different views of the human eye are clearly and beautifully executed; so are the delineations of the epidermis. The plates of the viscera, too, are correct and highly finished.

15. A Description of the new patent instrument for extracting teeth; also of a patent method of fixing artificial teeth. By S. P. DELAFONS, Surgeon-Dentist. 8vo. pp. 76, with two plates. London, June 26th, 1826.

16. Anderson's Quarterly Journal of the Medical Sciences, for July, 1826.
In Exchange.

17. Phrenology, in connexion with the study of Physiognomy. By G. SPURZHEIM, M.D. &c. Royal 8vo. pp. 192—and 34 Plates. Treuttle and Wurtz, London, June 1826. Price 22s. boards.

See the present Number, page 468.

18. The Edinburgh Journal of Medical Science, No. 3, for July, 1826. Octavo pp. 248. Two plates. (*In exchange.*)

19. A short account of the Analization, Effects, and Application of the Mineral Springs of Kaiser Franzensbad, near Eger in Bohemia. By J. J. HECHT. 8vo. pp. 62. Callow and Wilson, London, 1826.

20. Remarks on a recent Effort to subvert the Charter of the Royal College of Surgeons ; with animadversions on the Evil Tendency of "THE LANCET;" and Observations respectfully addressed to General Practitioners, on the Means of Maintaining their Privileges and Respectability. By WILLIAM COOK, Member of the Royal College of Surgeons, Secretary to the Hunterian Society, Editor of an Abridgement of "Morgagni," &c. 8vo. sewed, pp. 89. Underwoods, 1826.

21. Observations on the Expediency of Instituting a Friendly Association of the Medical Profession throughout Scotland, for insuring a Provision during Sickness and Old Age, Widows' Annuities, Endowments to Children, &c. By EDWARD DUFFIN ALLISON, Surgeon. 8vo. sewed, pp. 36. Edinburgh, 1826.

22. Revue Medicale, Française et Etrangère, et Journal de Clinique, de l'Hôtel Dieu, et de la Charité de Paris. Juin, Juillet, et Août, 1826. (*In Exchange.*)

23. Principles of Dental Surgery ; exhibiting a New Method of Treating the Diseases of the Teeth and Gums ; especially calculated to promote their health and beauty, accompanied by a general view of the present state of Dental Surgery, with occasional references to the more prevalent abuses of the art. In two parts, by LEONARD KOECKER, Surgeon-Dentist, Doctor in Medicine and Surgery ; Member of the Medical and Linnæan Societies of Philadelphia, &c. 8vo. pp. 445. London, 1826.

☞ *This valuable work in our next.*

24. The North American Medical and Surgical Journal—Nos. I.—III. January and July. Philadelphia, 1826. (*In exchange.*)

25. The American Medical Review and Journal of original and selected Papers in Medicine and Surgery. Philadelphia, 1826. (*In exchange.*)

26. An Anatomical Drawing and Diagram of the Eye. By W. P. COCKS. London. Highley, 1826.

27. Dissertatio Medica Inauguralis de Phthisi Pulmonali. Auctore DAV. JACOBO HALL, M.D. Chirurgo Adjuv. in Classe Britannica. Edinburgh, 1826.

☞ *This little thesis evinces a very fair acquaintance with the best modern writers, and the latest researches on pulmonary consumption.*

28. A Treatise on a Modified Application of Moxa, in the Treatment of Stiff and Contracted Joints ; and also in Chronic Rheumatism, Rheumatic Gout, Lumbago, Sciatica, Indolent Tumours, &c. &c. Illustrated by Cases and Plates ; with Observations on the different Remedies hitherto employed in the Treatment of Diseased Joints ; and an Investigation into the Nature, Causes, and Treatment of Spinal Diseases. Second Edition. By JAMES BOYLE, Esq. Surgeon to the Middlesex Infirmary, &c. 8vo. pp. 219. London, 1826. (*In our next.*)

29. Part Third of a Series of Elementary Lectures on the Veterinary Art: wherein the Anatomy, Physiology, and Pathology of the Horse are essayed on the general principles of Medical Science. By WILLIAM PERCIVAL, M.R.C.S. &c. 8vo. pp. 502. London, 1826.

30. A System of Anatomical Plates; with descriptive Letter-press. By JOHN LIZARS, F.R.S.E. &c. Part XI. Abdominal Viscera, together with the Male and Female Organs of Generation.

This fasciculus contains seven plates of exquisite workmanship. The first is occupied with the kidney, and the other six contain various and excellent views of the male and female organs of generation.

The accompanying descriptive part contains upwards of 100 pages of letter-press, and corresponds in ability of execution with the plates.

For the following works we have to return thanks to a liberal foreigner (J. B. Balliere, Medical Bookseller, Bedford-street, Bedford-square,) who has settled here for the sale of foreign medical works, viz.

31. Calmeil (L. F.) de la Paralyse, considéré Chez les Aliénés, et Recherches faite dans le Service de Feu, M. ROY, COLLARD, et ESQUIROL. En 8vo. prix 6s. 6d.

32. F. Tiedemann et L. Gmelin Recherches Experimentales sur la Digestion considérée dans les Quatres Classes d'Animaux Vertebres Traduites de Lallemand, par A. J. L. JOURDAN. *Première Partie.* 1826. Prix 8s. La Seconde Partie paraîtra à la même Adresse dans deux mois.

33. Hurtrel d'Arboval, Dictionnaire de Medecine et de Chirurgie, Vétérinaires. Tom. 1, en 8vo, prix 8s. Les Tomes 2 et 3 paraîtront de 2 mois en deux mois.

34. (J. F.) Meckel, Manuel d'Anatomie, Générale, Descriptive, et Pathologique. Traduit de Lallemande, par Messrs. JOURDAN, A. J. L. et G. BRZSCHET, Chef des Travaux Anatomiques de la Faculté de Paris. 3 fort Volumes en 8vo. Paris, 1825. Prix £1. 5s.

35. Traité, Historique et Dogmatique, de la Taille. Par F. J. DESCHAMPS, Membre de l'Institut, Chirurgien-en-Chef de l'Hôpital de la Charité; avec un Supplement dans lequel l'Histoire de la Taille est continuée depuis la Fin du Siècle dernier jusqu'à ce Jour. Par L. J. BRUN, Doct. en Med. 4 Vol. en 8vo. prix £1. Paris, 1826.

36. Traité Clinique et Experimental des Fièvres dites Essentielles. Par J. BOUILLAUD, Doct. en Med. de la Faculté de Medecine de Paris. En 8vo. prix 7s. Ann. 1826.

37. Traité Complet de l'Anatomie de l'Homme, comparée dans les Points les plus importants à celle des Animaux, et considérée sous le double Rapport de l'Histologie et de la Morphologie. Par HVR. CLOQUET, Professeur Agrégé à la Faculté de Paris. En 4to. Paris, 1826.

38. A Comparative View of the more intimate Nature of Fever; deduced from Physiological Analysis, and illustrated by Critical Remarks and Practical Observations. By JAMES BLACK, M.D. S.R.N. and Member of the Royal College of Physicians of London. 8vo. sewed, pp. 118, Price 4s. 6d. Longmans, September 12th, 1826.

In this little work there are some acute criticisms on various modern theories of fever, and an attempt to establish an eclectic doctrine, which is, at least, consonant with judicious practice.

39. The Hunterian Oration, delivered before the Royal College of Surgeons, in London, on Tuesday, February the 14th, 1826. By SIR ANTHONY CARLISLE, Kt. F.R.S. Surgeon Extraordinary to His Majesty, &c. Dedicated by permission to Mr. Secretary Peel. Royal Quarto, pp. 47. London, Sept. 15th, 1826. Price 7s.

40. A Treatise on Repelling the Paroxysm of Intermittent Fevers; illustrated with Cases. By JOHN BROWN, M.D. &c. Boston, Lancashire, September 15th, 1826. 8vo. pp. 60. Underwoods, London.

41. A Conspectus of Prescriptions in Medicine, Surgery, and Midwifery, containing upwards of a Thousand Modern Formulæ, including the New French Medicines, and arranged Tables of Doses. Selected from the highest Professional Authorities; intended as a Remembrancer for General Practitioners. The Second Edition enlarged and improved. 12mo, pp. 216. Anderson, West Smithfield. 1826. Price 5s. sewed.

XV.

INTELLIGENCE, &c.



On the 5th of July, the Associated Apothecaries and Surgeon-Apothecaries of England and Wales, now entitled "The Associated General Medical and Surgical Practitioners,"—held their annual meeting, at the Crown and Anchor, when the following Report was read by the Secretary.

Faithful to the trust reposed in them, your Committee respectfully submit to the General Meeting a Report of their proceedings during the past year.

From the passing of the Act of 1815, commonly called "The Apothecaries Act," the Committees successively appointed by the Association, have been anxious to extend the salutary provisions of that law, and to remedy its glaring defects, as well as to increase, through more efficient examinations, the usefulness of the practitioner, and the respectability of the profession, to which he belongs.

Early in the last Session, your Committee determined on renewing their application to Parliament; and, after a conference of the Deputation (formerly appointed) with Mr. Hume, they resolved to present a petition on the subject of those complaints, which the Apothecaries' Society continued to overlook, or affect to despise, even while (under the dread of losing their cherished Act altogether) they were remodelling their Court of Examiners, and improving their methods of examining candidates.

Meanwhile, the conduct of the Council and Court of Examiners of the Royal College of Surgeons, having excited much animadversion, and produced a disposition generally on the part of the Profession to remonstrate on the impropriety, and even the injustice, of certain newly-adopted regulations of theirs, it occurred to your Committee, that, as persons entrusted, by a numerous and highly respectable portion of the professional public, with its welfare, it was particularly incumbent on them to take the necessary steps for shewing their sense of the extraordinary conduct of the College, to assist in redressing the evils which were likely to arise, both to the

community and to the profession, from such conduct as had recently been displayed, and especially to put the practice of midwifery into such a state, as would better secure the safety of human life.

That the deliberations contemplated, might have all the aid which could be derived from numbers, experience, and talent, it was resolved to call a meeting—not merely of the members of this association, which might appear much too limited for the enquiry, but of general practitioners, who might represent fully the feelings and wishes of the majority of practitioners resident in or near the metropolis; and farther—under these circumstances, your Committee deemed it fair to defray out of the funds of the Association all the expences that should accrue from convening such a meeting; but once assembled, it would remain for that meeting, out of its own resources, to adopt and prosecute such remedial measures as might seem to them best suited to the occasion.

Your Committee believed that, in thus acting, they were, without departing from the tenour of their injunctions, performing an important public duty; and that the great body of general practitioners would gladly avail themselves of the opportunity thus afforded to express the sentiments they entertained on very various subjects connected with the profession, and to concur in such measures, as might appear just and necessary.

The meeting which was held on the 25th of February last (a great majority of whom were Members of the College of Surgeons) abundantly confirmed the propriety of the reasonings of your Committee—it was very numerously and most respectably attended, and the Resolutions then proposed,—and, at a subsequent meeting, confirmed—became the foundation of a petition to the House of Commons, which, after specifying the existing grievances,—prayed the Honourable House to institute an inquiry into the present state of medicine throughout England and Wales, to cause efficient examinations as to the qualifications of all persons, about to practise medicine or midwifery, and to adopt such other measures as, in the judgment of the Honourable House, might seem necessary for the remedying of the alleged abuses.

This petition, numerously signed, was presented to the House of Commons by Mr. Hume, on the 9th of April, and was ordered to lie on the table. That no discussion was entered into on its merits was undoubtedly owing to the extreme pressure of public business, the shortness of the session, and the meditated dissolution of parliament, which has since taken place.

Various letters from eminent practitioners resident in the country, expressive of their concurrence in the measures adopted at those meetings, and the subscription cheerfully entered into to defray the expences incurred are satisfactory testimonials, that the course resolved on was very generally approved, while the whole tenour of the Resolutions passed at those two meetings demonstrate the disinterested conduct, and liberal views, of the gentlemen who took the lead on those occasions.

Thus, without the smallest deviation from the principles of the Association your Committee have zealously endeavoured to ascertain the sentiments and wishes of a still more extensive class of the profession, and induced them to apply to parliament for the removal of evils, which can be obviated only by legislative enactment, sensible, that they could not possibly obtain for the public on the one hand, and the profession on the other, a greater boon than a free and comprehensive inquiry into the present state of medicine; the abuses in which are continually extending themselves, and calling with a louder voice for investigation and redress.

If there were any persons, who entertained a hope, that, on a future application to Parliament, the Apothecaries' Society would so far consider the

feelings of practitioners and the dignity of the profession, as to withdraw the odious clauses in their act, so often and so indignantly complained of—they must now be convinced that such a hope can no longer be reasonably entertained. Within these two years that Society has been twice before the Legislature; and it is painful to observe, that the maintainance of the Act of 1815, with nearly all its original imperfections, and teeming with degradations, has seemed of more value in their eyes, than the respect of their medical brethren, or even the honour of the profession itself.

Your Committee, therefore, earnestly recommend to their successors, collectively and individually, to use their utmost endeavours to obtain and diffuse information as extensively as possible; and immediately after the meeting of Parliament to present petitions to both Houses of similar import to those already submitted, not doubting that, as no power can render error perpetual, an enlightened legislature will, sooner or later, perceive, and remedy all the grievances complained of, and place on its proper basis a profession so highly important to the public good.

The expenditure has been kept within as narrow limits as possible, and the Committee confidently trust, that in this, as in all other instances, the members of the Association will recognize an earnest desire on the part of your Committee to render their labours subservient to the welfare of the community, and to the respectability and usefulness of the general practitioner.

Uterine Hæmorrhagy.

Dr. Mojon, Professor of Anatomy and Physiology in the University of Genoa, during the flourishing period of that school; and well known by his writings as a minute anatomist and physiologist, has lately proposed a new method of arresting uterine hæmorrhagy, depending upon the partial adhesion of the placenta to the uterus, and the non-contraction of that organ, after the birth of the child.

His plan is to inject cold water, slightly acidulated with vinegar into the placenta, by the umbilical vein. The sudden distension of the placenta, and the impression of the cold fluid on the internal surface of the uterus, excite it to contraction, by which the placenta is separated and the hæmorrhagy suppressed. Such, at least, has been the result in various cases in which Dr. Mojon's method has been tried. A common enema syringe answers the purpose very well, and if one injection should fail, he proposes a second, and even a third, allowing the fluid previously injected to escape.

Several of the most eminent medical men of Italy, to whom the plan was communicated, have expressed themselves much pleased with its originality and simplicity. To us it is quite new, appears easy of execution, unattended with any danger, and promises, in a large proportion of cases to supersede the very painful, and often dangerous operation of introducing the hand into the uterus.

New Regulations of the College of Surgeons.

An important change has been made in the Regulations of the College of Surgeons by the abrogation of the objectionable Order of the Court of Examiners, to which we have frequently alluded on former occasions. The following paper has been just promulgated by order of the Council:—

ROYAL COLLEGE OF SURGEONS IN LONDON.

Bye Law of the College, and Standing Orders of the Court of Examiners, relating to the Age and Professional Education of Candidates for the Diploma.

BYE-LAW, Sect. xvi. § 1.—No person under twenty-two years of age shall be admitted a Member of the College.

STANDING ORDER, 1. The only Schools of Anatomy and Surgery recognised by the Court are, London, Dublin, Edinburgh, Glasgow, and Aberdeen.

2. Certificates of attendance upon the surgical practice of an Hospital will not be received by the Court, unless such Hospital be in one of the above recognised schools, and shall contain on an average, one hundred patients.

3. The Court will, however, receive, as testimonials of education, certificates of attendance on provincial Hospitals, containing, respectively, one hundred patients; provided a student shall have previously attended two courses of anatomical lectures, and two courses of dissections, in any of the recognised schools of anatomy. But, the Court require, that the term of attendance on such provincial Hospitals shall be of twice the duration of that required at Hospitals in any of the recognised Schools of Anatomy.

Candidates will, conformably to the above Bye-Law and Standing Orders, be required, respectively, to produce, prior to examination, Certificates—

1. Of being twenty-two years of age.

2. Of having been engaged six years at least in the acquisition of professional knowledge.

3. Of having regularly attended three winter courses, at least, of lectures on anatomy and physiology, delivered at subsequent periods; and also one winter course, at least, of lectures on surgery.

4. Of having performed dissections during two or more subsequent winter courses.

5. And of having diligently attended, during the term of at least one year, the surgical practice of one of the following Hospitals:—

St. Bartholomew's, St. Thomas's, the Westminster, Guy's, St. George's, the London, and the Middlesex, in London.—The Richmond, Steeven's, and the Meath, in Dublin.—The Royal Infirmary, in Edinburgh.—The Royal Infirmary, in Glasgow; or, the Royal Infirmary, in Aberdeen; or of twice that term in any of the provincial Hospitals, conformably to the above Standing Order, No. 3.

Such Certificate must, also, express the dates of the commencement and of the termination of attendance on each course of lectures, and of dissections; and the periods of the commencement and of the termination of attendance on hospital practice.

The required Certificates must be delivered at the College ten days, at least, prior to the day on which Candidates shall, respectively, be desirous of admission to examination.

Candidates, under the following circumstances, and of the required age, are also, admissible to examination:—

Members of any of the legally-constituted Colleges of Surgeons in the United Kingdom.

Graduates in Medicine of any of the Universities of the United Kingdom, who shall have performed two, or more, courses of dissection, as above specified, No. 4; and who shall have regularly attended the surgical practice of one of the Hospitals, as above described, No. 5.

By Order,

EDMUND BELFOUR, Sec.

Lincoln's Inn-fields, Sept. 8, 1826.

To Medical Students.

A Medical Gentleman, eligibly situated, and well known to the Editor of this Journal, is desirous of receiving into his family a young gentleman

studying in the West End of the Town. Particulars may be known by personal application to Dr. Johnson, between the hours of nine and twelve in the forenoon ; or by letter, post paid.

Suffolk Place, 20th September, 1826.

✍ The situation will be found to combine several advantages.

In the Press.

An Essay on Medical Education : in which the relative importance of the various accessory sciences is ascertained, and the extent to which each separate science or branch of general knowledge should be cultivated, to afford the highest degree of usefulness in the healing art. By William Barrett Marshall, Assistant Surgeon, R. N. Honorary M. D. of the University of Gottingen. Dedicated, by permission, to the Medical Commissioners of His Majesty's Navy.

To the original Essay, the Associated Apothecaries and Surgeon-Apothecaries of England and Wales awarded their Gold Medal, on the 7th of July, 1824. The author submits to the public the present edition, very much altered and enlarged, in the humble hope of rendering to his younger professional brethren an acceptable service, by furnishing a guide to which they may, with some confidence, appeal for advice, and direction in their studies ; and in the desire of assisting those parents and guardians who may contemplate educating their youth for the responsible profession of medicine, with something more than a catalogue of books.

Subscribers names received by Burgess and Hill, London ; W. Curtis, Esq. Droxford ; Messrs. Seeley, London ; J. Marshall, Esq. R. N. No. 9, Beaufort Row, Chelsea ; J. B. Ward, Esq. Reading ; Johnson and Jacob, High-street, Gosport, and High-street, Winchester ; Mr. Harrison, Parade, Portsmouth ; and Mr. Griffin, Queen-street, Portsea.

Also in the Press, and shortly will be published, Part the First,

A Dictionary of Anatomy and Physiology, to be dedicated to Joshua Brookes, Esq. F. R. S. F. L. S. &c. &c. By Henry William Dewhurst, Surgeon. The Work to be completed in three parts.

Mr. Guthrie will commence his Lectures on the Principles and Practice of Surgery, on Tuesday, the 3d of October, at half-past Six o'clock in the evening, in the waiting room of the Royal Westminster Infirmary for Diseases of the Eye, Warwick-street, Golden-square. To be continued on Tuesdays, Thursdays, and Saturdays.

Two courses will be delivered during the season.

In each course the principles of surgery will be explained, and the practice resulting from them, with reference both to domestic and military surgery, fully pointed out.

The lectures on the diseases of the eye, although forming an integral part of those on surgery, will, for the convenience of illustration, be delivered every Thursday and Saturday morning, at Ten o'clock, previously to the examination of the patients ; and are also open to the students attending the practice of the infirmary.

The operations referred to in the Lectures will be shown in each course.

Terms of attendance :—perpetual, five guineas ; single course, three guineas.

Medical officers of the navy, the army, and the ordnance will be admitted gratuitously, on obtaining a recommendation from the heads of their respective departments, which must be presented to Mr. Guthrie, between the

hours of half-past Two and Four, at his house, No. 2, Berkeley-street, Berkeley-square.

Mr. Guthrie will deliver a Clinical Lecture every Wednesday during the season, at Twelve o'clock, in the Theatre of the Westminster Hospital, on some of the most important operations in surgery, accompanied by an anatomical demonstration of the parts on which they are to be performed.

Westminster Dispensary, Gerrard Street, Soho.

Doctor Nuttall has to intimate that he will recommence his lectures and examinations on the 2d of October, on the practice and theory of physic, and on materia medica, in the Westminster Dispensary. Hours and days of lecture, Eight to Ten every Monday, Wednesday, and Friday morning. Hours and days of examination, Five o'clock, p.m. thrice a week. One course, for the theory and practice of physic, three guineas; two courses, five guineas; unlimited attendance, eight guineas. One course of materia medica, two guineas; two courses, three guineas; unlimited attendance, four guineas; for perpetual to all, ten guineas. At home, 60, Upper Norton-street, Portland-place, each morning from Ten to Twelve. In his plan of teaching he has ventured to differ from the followers of Cullen's; and his plan comes recommended to the public, by the rapid progress it has afforded to the acquisition of the knowledge of pathology, and treatment of disease amongst his pupils. His classification of diseases is readily comprehended, being founded on the present enlightened state of medical science, on symptoms and parts affected, and not on hypothetical speculation about the nature of disease and other incongruities, the great objections to Cullen's arrangement. It will be constantly contrasted, however, with the system of that celebrated writer. His lecture on any given disease being closed, a case in point, in the living body, will be brought forward, wherever practicable, impressive on the student's memory, by realizing the image which can be but faintly sketched by description; or an example of the disease will be sought for in the recently dead subject; or illustration afforded through morbid preparations, casts, or drawings. The standard of healthy action claims his particular attention; and his inferences as to what symptoms denote individual diseases, are chiefly drawn from comparing the post-mortem appearances on dissection of hundreds of patients, with the previously recorded history of their symptoms, as they fell victims to disease, during eleven years practice at the Westminster General Dispensary.

Pupils are also admitted to attend the physician's practice of the above-named institution; and to engage in conducting the treatment of the patients when duly qualified.

NOTICES TO CORRESPONDENTS.

The long letter signed "A PHYSICIAN," came to hand on the evening of the 15th September, too late for admission, even if admissible. But we do not deem ourselves justified in publishing anonymous animadversions, whether on public bodies or private individuals. On many points we agree with the sentiments of the "PHYSICIAN;" and if he will put his name to the communication, we will give it a place in our next number. Surely the "PHYSICIAN" can have no just ground for exposing us to a responsibility which he shrinks from himself. Is this an example of that public spirit which he wishes to see evinced?

In respect to the Hunterian Museum, we have reason to believe that the Board of Curators mean to pay no attention to the liberal recommendation of the trustees not to permit the visitations of English licentiates or Scottish

with the view of practising a
through that channel which is
If they do not, they will commi
If they are unable to send their
them a good surgical education
pectably and independently, as
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we have urged before, and ~~the~~
which already exists and is dail
of the Oxford and Cambridge
Scotland will out-number them
in the metropolis, but in every
empire, there will be two class
education, but of unequal rank
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and we are convinced that the
spirit is on the eve of bringi
clared hostility, which, indeed
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ject in our next.

The review of Dr. Paris on L
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and especially the junior class
th' imminent deadly *breach*"—
and PLUMB RIDDINGS!—*For*
pleasure in the *recollection* of
sea-sickness—or even shipwre

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XVI. EXTRA-LIMITES.

Observations on Fever as it has prevailed at Smyrna during 1825—26.

By JOHN CUTHBERT CLARK, M.D.

The pathology of fever is involved in much obscurity, and its symptoms subject to many modifications, arising from the peculiarities of climate, and the influence of different localities. The disease is of such constant occurrence in one or other of its forms, and so diversified in its progress by the irregularities of the epidemic constitution and other causes, as to have furnished abundant materials for reflection, and ample exercise for the speculative and ingenious of every age and country. Abilities and genius of the first order have been employed in its investigation; yet, few diseases, I will venture to say, continue more effectually to baffle research, although authorities, with whom it is not safe to differ, have professed, and are believed to have unveiled, its hidden mysteries, and to have cleared the path of all obstacles to the approach of the uninitiated.

Those who have seen much of fever under its severer, more uncommon, and more concentrated character will, I apprehend, be found to be the most moderate in their assumptions as to its local habitation, its nature, or essence, and least sanguine as to the adaptation of any one unvarying or unerring line of conduct to its treatment. This, at least, is the impression which an acquaintance with the disease in different climates has produced on my mind, and, if I do not mistake, a similarly subdued tone will be found to be not uncommon amongst those whose nosological security has been disturbed by striking deviations from the ordinary process of febrile action. It is not my intention, however, to attempt to reconcile discrepancies, or to enter into the merits of the various and conflicting theories to which, even in my own time, this interesting and prolific subject has given birth. Neither do I presume to add to the confusion which already obtains, by any attempt at nosological improvement. My object is the more humble one, of endeavouring to record the history of fever as it has presented itself, and as it has fallen under my observation in this place, during the last twelve months. Its features have been sufficiently remarkable; they have been (to me at least) new, and although not unknown to the practitioners of the place, several of them, men who have passed great part of a long life in the Levant, they have been little investigated, and have been regarded as peculiarly fatal and irremediable. From the authorities also within my reach, I have been able to obtain but little information, excepting such as is to be derived from the vague descriptions of the French writers, and their allusions to the older authors, the somewhat analogous congestive typhus of Dr. Armstrong, and various observations contained in the works of the illustrious Jackson, to whose unwearied zeal, and philanthropic labours in this department of human suffering, science owes so much, and the gratitude of his fellow men still more. Under these circumstances, I am led to hope that an attempt to describe an uncommon form of disease, (which, as far as I know, has no place in any English classification, and no parallel that I am acquainted with, in its distinguishing symptoms—the diminution of temperature, and torpor of the circulating system, excepting in the account communicated by Dr. Dickson to Dr. J. Johnson, and inserted in his valuable work on Tropical Diseases, relative to a fatal fever, which afflicted the garrison of Mariagalante in 1803,) will not be found to be devoid of inte-

rest, especially to those whose destinies lead them into countries where fever assumes its most appalling aspects.

It may be excusable to premise, that the city of Smyrna is situated at the head of a deep gulf, bounded nearly on all sides by a bold and deeply indented outline of mountain scenery, in some parts of considerable elevation. The approach to the city by sea is somewhat circuitous and winding, in consequence of a long narrow tongue of land, which is gradually increasing its dimensions by the detritus of the Hermus, from the mouth of which, it extends across the gulf, leaving a narrow channel between its extremity and a projecting point of low land which approaches it from the opposite side. The city is built on the broad base of a steep hill, crowned by the ancient citadel, and covers a much greater extent of ground than would be imagined by any one approaching it from the sea, and unacquainted with the undulations, and irregularities of the surface which intervenes between it and the steep acclivities, on which stands the Turkish quarter. This quarter is inhabited by a dense population of Mahometans and Jews, who have wisely entrenched themselves in the most healthy district, leaving the lower space to the Christian population, including under that general denomination, Armenians, Greeks, Catholics, and a few Protestants. Parallel with the margin of the sea is the Frank Street, which is built entirely on alluvial formation, and may be said to stand over a bed of water, which is met with abundantly at the depth of a few feet. To the northward and eastward of the town, a long sandy point forms one side of the entrance of a deep inlet or bight, the southern shore of which, is partly under cultivation and partly marsh. A deep valley through which flows the Meles, now an insignificant stream, and which has its outlet in this marsh, winds round the hill on which the city is placed, and in these situations fever, at particular seasons, is not unfrequent.

The climate is subject to considerable vicissitude; the summer heat is oppressive, and would be intolerable but for the regular succession of land and sea breezes, the thermometer, in the months of July and August not unfrequently ranging as high as 82° and 88° in the shade; and occasionally in southerly winds, reaches 95° and 96° , while the cold of winter is peculiarly piercing and keen, although the thermometer does not indicate the degree of cold which is perceptible by the living body. Notwithstanding all these sources of disease, however, the climate can scarcely be said, in ordinary seasons, to be an unhealthy one. Autumnal fevers of a distinctly remittent type, severe in degree it is true, but by no means intractable under proper management, were frequent during the first years of my residence here, yet they were generally traceable to the influence of miasmata, and particularly to those of the plain of the Cayster in the neighbourhood of Ephesus, which, like other ancient and deserted cities, conceals amongst its ruins, a severe penalty on those who visit it at improper seasons. Of late years, however, comparatively few travellers have ventured thither, and that source of disease being withdrawn, fevers of indigenous growth and unusual character have taken its place. The political evils to which the country has been exposed, and in which all classes have more or less participated, have no doubt had their share in the production of disease, which has never, however, assumed a contagious character, and is clearly of domestic origin.

I had occasionally, in consultation with others, but more particularly since the commencement of the Greek insurrection, had opportunities of observing the first form of fever in question, namely, the "*fièvre pernicieuse algide*" of the French nosologists, amongst Greeks, Armenians, and other subjects of the Porte, a class of people, on whom the depressing passions have amazing influence; who, either from fears for their own, or their friends' safety, or the equally alarming fears for property, have been at-

struck by this formidable disease. In such cases, the circulation suddenly forsook the surface, an icy coldness pervaded the whole frame, the pulse was in many instances, scarcely perceptible, more frequently it was altogether abolished. The sensorial functions gradually partook of the benumbing influence, and the powers of life were surrendered without a single rallying effort. I seldom had an opportunity of seeing these cases a second time, but I have reason to believe that they were almost uniformly fatal. Amongst those which subsequently occurred in my own practice, and which I had it in my power to watch from the beginning, the greater part occurred last summer, and the symptoms which were alike, appeared in nearly the following order. After two or three days of torpor and indisposition, the patient is attacked by chilliness, succeeded by increase of heat, head-ach, muscular and dorsal pains, lassitude and prostration of strength. The pulse is accelerated, but not remarkably increased or diminished in volume. He complains of thirst, and general uneasiness, together with such other symptoms as are common to the invasion of all fevers. There is nothing, however, either in the appearance of the patient, or in the nature of the symptoms which can indicate the approach of the remarkable derangement of balance which is about to take place. I have observed two persons, of the same age, of similar habits, living in the same apartment, and who were attacked about the same time, in whom the leading symptoms were alike, and who were both subject to nearly the same treatment but in only one of whom the algid symptoms ensued; while, in the other, the course of the disease was that of the more open and regular fevers of the country. About the second or third day, but sometimes earlier, the extremities are found to be cold, and, on examining the trunk, and other parts of the body, the same extraordinary diminution of temperature is found to have taken place. A change, however, of which the patient is quite unconscious until he is informed of it by those about him. There is no shivering, nor is the slightest sensation of cold complained of; the pulse, if felt at all, is thready and exceedingly rapid, and disappears under the slightest pressure of the finger. There is more usually, a total want of pulsation in all the tangible vessels, and even in the region of the heart. The countenance, in some cases, is livid, and betrays unspeakable anguish; the features are withered and shrunk. The intellectual powers are, for the most part, but little impaired; and, there is frequently a command of muscular exertion, a calm composure and self-possession which would lead any one, unacquainted with the patient's situation, to believe him free from complaint, but, when the fingers are applied to the wrist, and the pulse is sought in vain, when the more than dently coldness of the surface is perceived, the illusion vanishes. In this state of equivocal existence, he continues from 10 to 18 or 24 hours, and, in some cases, much longer, when, if he survives the first paroxysm, by the persevering application of remedies, and the re-active energies of the system, an increase of temperature takes place, which gradually acquires different degrees of intensity, according to the capacity of the powers of life and the nature of the means employed, and occasionally requires to be moderated. After an uncertain interval, however, the same appearances are renewed, and either carry the patient off, or are repeated with diminished violence until the healthy action is re-established.

The following case may serve as a specimen of the disease, which it has been my aim to describe. Others, in which the symptoms were, in some respects, still more remarkable, might have been added, but I have been deterred from doing so by unwillingness to occupy, unnecessarily, the time of others, or to exceed the limits which I had assigned to this paper. With regard to the remedial means employed, I have nothing new to propose, and am willing to ascribe the successful treatment of the disease, chiefly, to the

unremitted application of such resources as experience has shewn to be best adapted to fevers of a congestive character or of irregular excitement.

Case. A gentleman who had been, for a considerable time, employed in antiquarian research amongst the islands of the Archipelago, and on the coast of Asia Minor, arrived here on the evening of the 25th August, 1825. He had been indisposed, and confined to bed for several days, and had taken a laxative medicine the preceding morning. I found him labouring under considerable depression of spirits, and restlessness, his pulse was quick and feeble, his skin of nearly natural heat;—he was thirsty and anxious, yet he made no particular complaint, and there was no prominent, or urgent symptom in the case. His mind was, therefore, tranquillized as much as possible, and I prescribed for him a camphorated, saline mixture, with ten grains of calomel at bed time. 26th. His pulse had gained considerably in strength his skin was moderately warm, his bowels had been acted on by the calomel, and he felt, altogether, more comfortable than on the preceding day; his tongue was moist, thirst was moderate, and he had had some hours of refreshing sleep. A powder, composed of pulv. Jacobi, g. ij. calomel, g. iij. pulv. tragacanth. co. g. iv. was administered every four hours, and he was left at night better in every respect, and in no unpromising condition. Shortly afterwards, however, the algid symptoms appeared, and on being called, I found him pulseless and cold. There were still some faint remains of warmth in the axillæ, but these quickly disappeared, and the whole body soon communicated to the hand, a peculiarly repulsive sensation of cold. No pulse could be perceived in the crural, temporal, or carotid arteries, nor in the region of the heart was any action perceptible; yet, to my questions he replied, that he felt comfortable, and complained only of thirst; his stomach continued retentive, and his bowels were readily relieved by a stimulating enema. A blister was now applied to each leg, a very large one to the epigastric region; stimulating frictions and bottles filled with hot water were applied to different parts of the body; sinapisms were placed on the soles of the feet and on the thighs. He took six grains of the sub. carb. ammoniæ, combined with opium, every three hours, together with a strong decoction of bark and valerian, in doses of two ounces every hour. Notwithstanding an assiduous application of these means, however, he was found, on the morning of the 27th, with scarcely any increase of heat; and several hours elapsed before the pulse was distinguishable at the wrist. About two p. m. the pulse and heat were both restored, the former being much accelerated. The tongue now became dry and parched, its edges and apex being exceedingly red and fiery. He complained of sensibility on pressure over the epigastrium; thirst became more urgent; the bowels were relaxed and irritable; and the pulse rose to 110. Under these circumstances 18 ounces of blood were abstracted from the arm, by which he was decidedly relieved in every respect. The decoction of bark had been exchanged in the morning for an oily demulcent mixture, and mucilaginous fluids, calculated to soothe the now excited mucous membrane of the bowels. The sub. carb. ammoniæ had been omitted, and, in consequence of head-ach, a blister was applied to the nape of the neck. About seven in the evening, a sudden reduction of temperature took place, which continued the whole of the night, but unaccompanied by shivering or the slightest sensation of cold, and did not diminish until eleven o'clock, a. m. of the following day. The same means were employed, as during the former paroxysm; the succeeding excitement was much more moderate; and he passed the day more composedly than the preceding one. The cold stage returned about 6 p. m. but subsided early in the morning of the 29th. He had little increase of heat during the day, and the algid symptoms returned at a later hour; they

were, however, less intense, and of shorter continuance. He was now able to continue the decoction of bark every two hours; no preternatural increase of heat followed; and the frigid symptoms returned no more. He was removed to apartments on shore on the 2d September, and continuing the decoction of bark a few days longer, his recovery was uninterrupted and complete.

It is no part of my purpose, to indulge in speculation as to the morbid cause by which the sources of vital heat, and that due co-operation between the nervous and sanguiferous systems which is believed to be essential to the maintenance of the calorific function, become thus obstructed and unblended. The subject is connected with other questions which are involved in so much ingenious ambiguity, that I forbear to do more than to place the facts as they have occurred to me before more competent judges. "Where so many and such various chemical processes are going on as in the living body, are we justified in selecting any one of them for the purpose of explaining the production of heat?" is the question of a distinguished physiologist, and where he has acknowledged the difficulties with which this mysterious subject is beset, I may well be permitted to pause. How far the direct operation which some modern physiologists are disposed to assign the nervous system in the evolution of heat, is reconcilable with the phenomena of this remarkable disease, may perhaps be questionable, inasmuch as the integrity of the sensorial functions, and other ordinary manifestations of the nervous agency are unimpaired, while the stimulus of the arterial blood which is supposed to be necessary for the due excitement of the brain and nerves, appears to be withheld, or very much diminished, by the suspension of all cognizable arterial action. No spasmodic, gastric, or intestinal disturbance, as in the cholera of India, in which reduction of temperature is a conspicuous symptom, countenances the supposition, however probable, that the par vagum, and great sympathetic, with their numerous and important relations are mainly implicated in the chain of causes. The accumulation of blood in the venous system, in the spleen and other visceral receptacles, with its difficult transmission through the lungs, and the defective chemical change which it there undergoes, are in this disease, at least, the most prominent causes of diminished temperature. But if there is obscurity in the process by which the organs concerned in the elaboration of heat perform their functions, what new arrangement or combination is employed in the production or extrication of the mortal cold which gradually overspreads the entire surface? The subject has been treated, with what success it does not become me to decide, by M. Bailly (de Blois) in a communication inserted in the 2d vol. (new series) of the *Revue Medicale*, relative to a fever of the same description, which he had opportunities of observing in l'Hôpital du St. Esprit at Rome, in 1822. His pathological and physiological observations are, like the reasonings of his ingenious countrymen on such subjects, marked by considerable plausibility, yet, his deductions, or the deductions of those with whom he was associated, as is not unusual with that unequally gifted people, appear to me to have led to inefficient, if not erroneous practice; since stimuli, and the continued application of external warmth were withheld or insufficiently employed; and the result of the cases detailed, five in number, only one of whom recovered, is far from encouraging. But whatever may be the rationale of the morbid phenomena, I have acted on the broad principle of sustaining the living powers; of moderating them when roused to excess; and it is in my power to shew, that the steady application of such agents as are calculated to fulfil these indications has been successful in twelve of thirteen cases of the disease which came under my personal observation and care. This circumstance will account for the want of such post mortem examina-

tions as might have served to illustrate the subject ; and as dissection is never permitted by the people of the country, I have not been able to avail myself of the observations of others. From the same cause, I am unable to corroborate by my own observation a statement of M. Bailly relative to the evolution of heat after death ; although I am assured by others, on whose accuracy I have some reliance, that such was the fact in some instances during the prevalence of the disease here ; and that, in some cases, it was so freely developed as to prevent interment from taking place for some hours longer than is usual with the Greeks and other people of the country, whose custom it is to bury their dead without delay.

One case of the algid disease has already occurred to me this season, and re-action never took place. The patient sunk after lying upwards of 30 hours in the state described. Its appearance has been unusually early, and I am inclined to believe, that it and the form of fever which I will now beg leave as briefly as possible to describe, have been one and the same disease, modified by circumstances, and by the change of season. About the close of September the first-mentioned disease subsided. Fever, however, continued to occur sporadically, and began to assume a new complexion. A keen-northerly wind commenced in the month of January, and continued to blow with an inveteracy unknown to the oldest inhabitant during three months. Rain fell, but very sparingly, and not in sufficient quantity to unload the drains or sewers which convey all the impurities by a rapid descent from the upper town to the sea, and which now stagnated in the level space beneath. The outlets of these drains are confined to the quarter occupied by the lower half of Frank Street, which is about three-quarters of a mile in length, and to this district the disease confined its operations, any isolated cases which occurred in other parts of the city being amongst brokers or other persons employed during the day in the business of the European merchants in the Frank Street, where it was contracted and conveyed by them to their homes, in which, however, it never became contagious. This disease commenced frequently with catarrhal symptoms ; but, in all cases, its approaches were gradual and insidious ; the patient being able to attend to business for several days before decided illness compelled him to retire. He was then suddenly overpowered by great languor and listlessness ; the pulse was found to be quick and feeble ; an increase of heat and vascular action soon followed in most cases. The pulse became full, bounding, and gradually acquired a tumultuous irregularity, which, about the third day in general, defied all calculation. Thus, it was found in the morning either entirely wanting at the wrist, or barely perceptible ; some hours afterwards two or three irregular throbs were followed by a long intermission ; and in the evening it was occasionally found to be unchained, although still irregular, and intermitting at longer intervals. The patient sighed deeply, and complained chiefly of a load and oppression at the præcordia ; the countenance became mottled and grim ; livid streaks and patches appeared on different parts of the body, with a very faint substratum of yellow, and at this stage death occasionally took place about the 4th or 5th day. In the majority of cases, however, about the 6th or 7th day, the patient's entire body was found to have assumed a deep yellow colour ; the tongue became dry, contracted, and glazed. The pulse continued labouring, obstructed, and irregular for several days ; the stomach, in a very few cases, became irritable, and rejected whatever was received, either as medicine or drink. Retention and suppression of urine were not unfrequent symptoms, the latter being observed chiefly amongst those cases which ended fatally. Under these circumstances, the disease extended very frequently to the 14th and 21st days, before any decided amendment could be perceived ; the first indication of which, however, was afforded by the

pulse becoming more regular. But the convalescence in all, even the most favourable cases, has been lingering and protracted, beyond any that I have ever met with; and the cessation of the morbid action has been so gradual and imperceptible, and attended by so little decided improvement, as, in many cases, to have kept alive the solicitude of the medical attendant and friends to unusually extended periods of febrile termination. Ophthalmia has been not an unfrequent sequel of the disease, and was obstinate in character. The yellow suffusion was obviously the result of great hepatic engorgement, and was hailed, after some acquaintance with it, as rather a favourable omen, when occurring about the 6th or 7th day, as it was generally attended by some relief of the peculiarly constrictive and oppressive sensation at the præcordia.

The treatment which I was led to adopt in this form of the disease was suggested by the strong evidences of visceral obstruction, and of a congestive state of the circulation in the great venous trunks. In the early part of the disease, the pulse was such as indicated the necessity of free sanguineous depletion, the effects, however, of this admirable remedy were, I am sorry to say, far from satisfactory. It was badly borne in every case, and a repetition of bleeding was supported still worse, the loss of a few ounces of blood being sufficient to bring on alarming lowness and syncope. Local bleeding by leeches nevertheless was advantageously substituted. Emetics in the forming stage of the disease were frequently very useful. Purgatives were always had recourse to, and, when preceded by one or two scrupulous doses of calomel, were productive of their usual good effects. On the constitutional effects of that medicine, however, my chief reliance was placed, particularly on the latter disease. Together, therefore, with the internal administration of calomel, I was led to join camphorated mercurial friction over the right hypochondriac region, and, without referring to the disputed point of its *modus operandi*, I have only to observe that its effects on the salivary apparatus have been, in this disease, such as I have been accustomed to observe them in other fevers, but particularly those of irregular excitement, or of protracted character, ordinarily connected with a solution of the disease. Whether these are to be regarded as causes or effects of that solution I do not now enquire, some experience in fever of that description, and particularly in this climate to which free depletion has been inapplicable, and in which the more energetic stimulants have been inadmissible, having so long led me to associate its appearance with that of returning health, that I fully agree with those who consider this invaluable remedy amongst the best of our therapeutic resources in fever. Blisters were applied according to circumstances, but for the most part with unsatisfactory effect, the superficial circulation being so languid, as in most instances under my observation to prevent any salutary effect from them as a remedy. They produced scarcely any vesication, and occasioned little more than the effect compared by Dr. Jackson to that of parts seared by a heated iron. The warm bath was decidedly serviceable in some cases of this and the preceding disease; but the attendant fatigue, and alarming symptoms of collapse which more than once occurred in approaching the erect posture deterred me from its further use. But whatever other means were employed, the speedy supervention of great debility and prostration in every case, soon pointed out the necessity of supporting the patient's failing strength. Bark which, in the ordinary fevers of this country, is a remedy above all praise, after the vital organs have been secured by bleeding, was here found to be inadmissible, and was abandoned, but a free use of brack porter or cider was found to fulfil this indication to the most satisfactory extent. Some experience in the administration of the first of these articles, two years and a half ago, amongst a number of sick belonging to

H. M. S. *Cambrian*, placed under my care in this hospital, and afflicted with one of the worst typhoid fevers I have ever witnessed, in consequence of having conveyed a part of the wretched Turkish garrison of Napoli di Romania to this place, and who were more benefited by a liberal allowance of it than by any remedy whatever, encouraged me to extend its use to the fever in question, and I have had much reason to be satisfied with the result, which has, I am happy to say, been successful in every case of which I have had the charge.

In the early part of June, cases of this disease had become rare, and it was hoped would entirely disappear under an increase of temperature. The event, however, has been otherwise; its distinctive characters continue the same, but the march of the disease has been more rapid. It has never, in any instance, assumed the character of contagion. It has been, and continues to be, confined to a limited district, beyond which it has not strayed, unless when conveyed by persons labouring under the disease, and it has never been communicated by them to others. The mortality, considering the number attacked, has hitherto been inconsiderable; and has been chiefly amongst the Greeks, whose prejudice and pusillanimity, in sickness as well as in the ordinary affairs of life, are invincible.

JOHN CUTHBERT CLARKE.

Smyrna, July 1st, 1826.

Additional Subscribers since last Quarter.

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Changes of Residence.

Mr Marshall Hall, from Nottingham, to Keppel Street, Russell Square.
Dr. Hunt, from York Street, St. James's Square, to Richmond.

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